CHAPTER 6

RESTORATION STRATEGIES IN THE SOUTH FORK OBION RIVER WATERSHED

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6.1. BACKGROUND.

The Watershed Water Quality Management Plan serves as a comprehensive inventory of resources and stressors in the watershed, a recommendation for control measures, and a guide for planning activities in the next five-year watershed cycle and beyond. Water quality improvement will be a result of implementing both regulatory and nonregulatory programs.

In addition to the NPDES program, some state and federal regulations, such as the TMDL and ARAP programs, address point and nonpoint issues. Construction and MS4 storm water rules (implemented under the NPDES program) have transitioned from Phase 1 to Phase 2. More information on storm water rules may be found at: http://www.state.tn.us/environment/wpc/stormh2o/.

This Chapter addresses point and nonpoint source approaches to water quality problems in the South Fork Obion River Watershed as well as specific NPDES permittee information.

6.2. COMMENTS FROM PUBLIC MEETINGS. Watershed meetings are open to the public, and most meetings were represented by citizens who live in the watershed, NPDES permitees, business people, farmers, and local river conservation interests. Locations for meetings were chosen after consulting with people who live and work in the watershed. Everyone with an interest in clean water is encouraged to be a part of the public meeting process. The times and locations of watershed meetings are posted at: http://www.state.tn.us/environment/wpc/watershed/public.shtml.

6.2.A. Year 1 Public Meeting. The first South Fork Obion River Watershed public meeting was held jointly with the North Fork Obion River and Mississippi River Watersheds on October 9, 2000, at the Union City Municipal Building. The goals of the meeting were to: (1) present, and review the objectives of, the Watershed Approach, (2) introduce local, state, and federal agency and nongovernmental organization partners, (3) review water quality monitoring strategies, and (4) solicit input from the public.

Major Concerns/Comments

- Silt and sediment in Relfoot Lake and Bayou du Chien should be monitored

6.2.B. Year 3 Public Meeting. The second South Fork Obion River Watershed public meeting was held jointly with the North Fork Obion River and Mississippi River Watersheds on October 24, 2002, at the University of Tennessee-Martin campus. The goals of the meeting were to: (1) provide an overview of the watershed approach, (2) review the monitoring strategy, (3) summarize the most recent water quality assessment, (4) discuss the TMDL schedule and citizens' role in commenting on draft TMDLs, and (5) discuss BMPs and other nonpoint source tools available through the Tennessee Department of Agriculture 319 Program and NRCS conservation assistance programs.

Major Concerns/Comments

- Flooding occurs more often
- Flooding occurs less often
- The COE allows levees without concern for the river (does not allow for return of natural meander) or people down stream (increased flooding).
- Rainwater (storm water) clears off the land quickly, but silt from upstream (where there are levees) comes later and persists.
- Chicken litter application stinks and puts nutrients in streams, especially near Dresden (Mud Creek)
- The Obion River is getting shallower (due to siltation), so it floods nearby woodlands and farms.

6.2.C. Year 5 Public Meeting. Not yet scheduled.

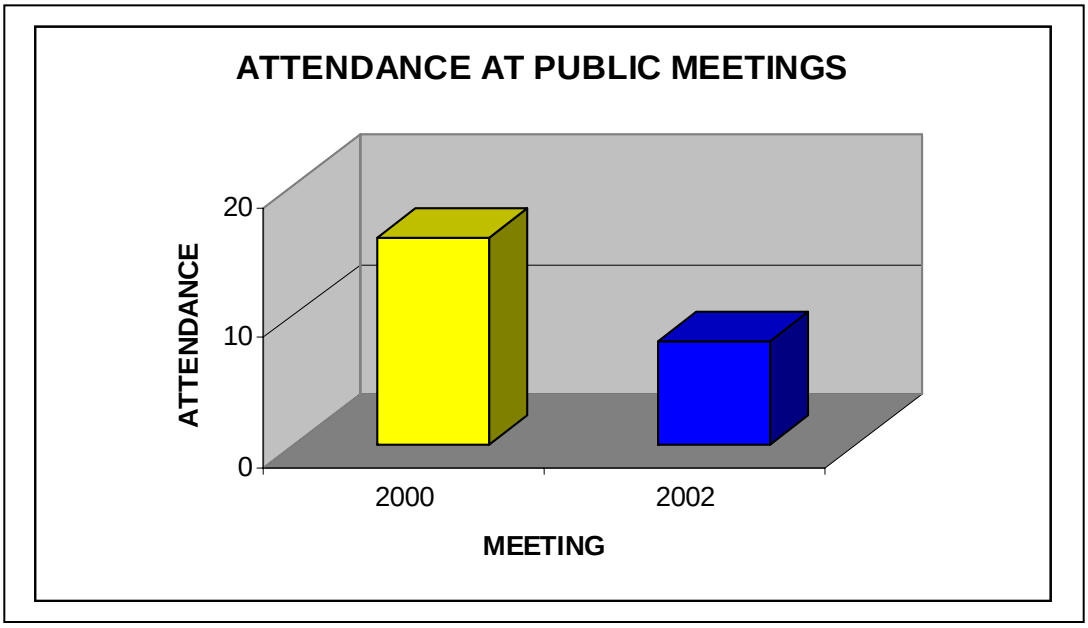

Figure 6-1. Attendance at the South Fork Obion River, North Fork Obion River, and Mississippi River Watershed Joint Public Meetings. *Attendance numbers do not include TDEC personnel.*

6.3. APPROACHES USED.

6.3.A. Point Sources. Point source contributions to stream impairment are primarily addressed by NPDES and ARAP permit requirements and compliance with the terms of the permits. Notices of NPDES and ARAP draft permits available for public comment can be viewed at http://www.state.tn.us/environment/wpc/wpcppo/. Discharge monitoring data submitted by NPDES-permitted facilities may be viewed at http://www.epa.gov/enviro/html/pcs/pcs_query_java.html.

The purpose of the TMDL program is to identify remaining sources of pollution and allocate pollution control needs in places where water quality goals are still not being achieved. TMDL studies are tools that allow for a better understanding of load reductions necessary for impaired streams to return to compliance with water quality standards. More information about Tennessee's TMDL program may be found at: http://www.state.tn.us/environment/wpc/tmdl/.

Approved TMDL:

> **South Fork Obion River Watershed** - Total Maximum Daily Load for E. Coli in the South Fork Obion River Watershed in Carroll, Gibson, Henderson, Henry, Obion, and Weakley Counties. Approved 03/05/2007.
>
> http://www.state.tn.us/environment/wpc/tmdl/approvedtmdl/SFObionEcoli.pdf

TMDLs are prioritized for development based on many factors.

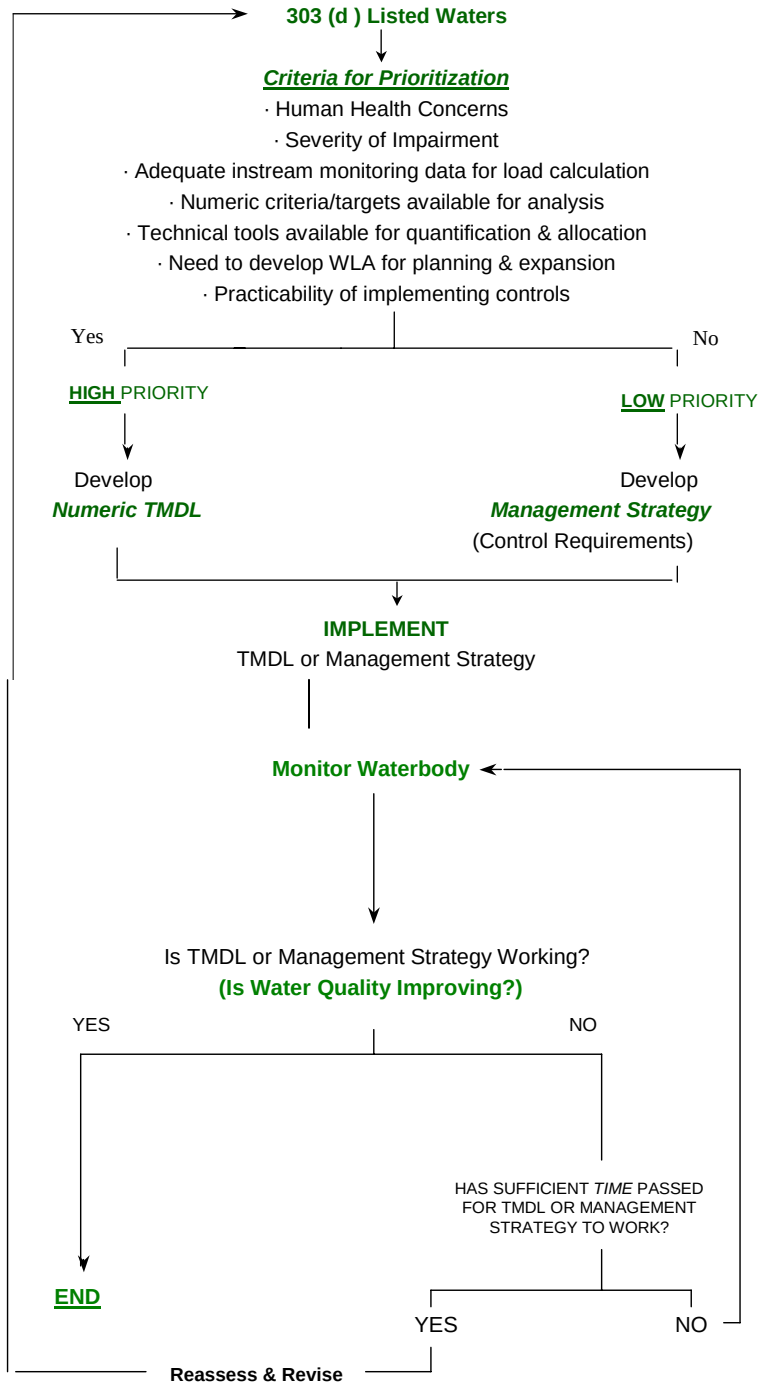

Figure 6-2. Prioritization Scheme for TMDL Development.

6.3.B. Nonpoint Sources

Common nonpoint sources of pollution in the South Fork Obion River Watershed include urban storm water runoff, riparian vegetation removal and other habitat alterations, and inappropriate land development, road construction, and agricultural practices. Since nonpoint pollution exists essentially everywhere rain falls, existing point source regulations can have only a limited effect. Other measures are, therefore, necessary.

There are several state and federal regulations that address contaminants impacting waters in the South Fork Obion River Watershed. Most of these are limited to point sources: a pipe or ditch. Often, controls of point sources are not sufficient to protect waters, so other measures are necessary. Some measures include efforts by landowners and volunteer groups and the possible implementation of new regulations. Many agencies, such as the Tennessee Department of Agriculture (TDA) and the Natural Resources Conservation Service (NRCS), offer financial assistance to landowners for corrective actions (like Best Management Practices) that may be sufficient for recovery of impacted streams. Many nonpoint problems will require an active civic involvement at the local level geared towards establishment of improved zoning guidelines, building codes, streamside buffer zones and greenways, and general landowner education.

The following text describes types of impairments, possible causes, and suggested improvement measures. Restoration efforts should not be limited to only those streams and measures suggested below.

6.3.B.i. Sedimentation.

6.3.B.i.a. From Construction Sites. Construction activities have historically been considered “nonpoint sources.” In the late 1980’s, EPA designated them as being subject to NPDES regulation if more than 5 acres were being disturbed. In the spring of 2003, that threshold became 1 acre. The general permit issued for such construction sites establishes conditions for maintenance of the sites to minimize pollution from storm water runoff, including requirements for installation and inspection of erosion prevention and sediment controls. Also, the general permit imposes more stringent inspection, design criteria, sediment control measures, and self-monitoring requirements on sites in the watershed of streams that are already impaired due to sedimentation or are considered high quality. Regardless of the size, no construction site is allowed to cause a condition of pollution.

Beginning in 2003, the state began requiring some municipalities to obtain coverage under a permit designed to address nonpoint runoff issues: the General NPDES Municipal Separate Storm Sewer System Permit, commonly known as MS4. This permit requires the holder to develop a comprehensive storm water management program, including the adoption of local regulatory ordinances, regular inspection of construction sites and other discharges into their storm sewers, and a variety of educational, mapping, and monitoring activities. The state audits and oversees these local MS4 programs. Due to the rural nature of much of the area, and lack of large high density population centers, the only portion of the South Fork Obion River Watershed in

Tennessee currently covered by an active MS4 program is Cane and Mud Creeks which drain the city of Martin.

Construction sites within a sediment-impaired watershed may also have higher priority for inspections by WPC and MS4 personnel, and are likely to have enforcement actions for failure to control erosion.

6.3.B.i.b. From Channel and/or Bank Erosion. Many streams within the South Fork Obion River Watershed suffer from varying degrees of streambank erosion. When steam channels are altered, banks can become unstable and highly erodable. Efforts to speed the drainage and to dry up wetlands by channelization severely impacted the main stem and most of the tributaries in this watershed. Heavy livestock traffic can also severely disturb banks. When large tracts of land are cleared of vegetation (especially trees) or wetlands and replaced with row crops or impermeable surfaces like asphalt and rooftops, the large increases in the velocities and volumes of storm water runoff can also overwhelm channel and bank integrity because destabilized banks contribute to sediment loadings and to the loss of beneficial riparian vegetation.

Some inappropriate agricultural practices have impacted the hydrology and morphology of stream channels in the South Fork Obion River watershed.

Several agencies such as the NRCS, TVA, and TDA, as well as citizen watershed groups, are working to stabilize portions of stream banks using bioengineering and other techniques. Many of the affected streams, like Cane Creek, Dolan Creek or Mud Creek, would benefit from these types of projects.

Some methods or controls that might be necessary to address common problems are:

Voluntary Activities

- Re-establish bank vegetation. An example is Reedy Creek
- Establish off-channel watering areas for livestock by moving watering troughs and feeders back from stream banks, or at least limit cattle access to restricted areas with armored banks entry
- Limit cattle access to streams and bank vegetation A greater effort to educate landowners concerning the damage done to creeks with bank clearing and the requirement of permits.

Regulatory Strategies

- Increase efforts in the Master Logger program to recognize impaired streams and require more effective management practices.
- Require post-construction run-off rates to be no greater than pre-construction rates in order to avoid in-channel erosion.
- Limit road and utility crossings of streams through better site design.
- Limit clearing of stream and ditch banks or other alterations such as that along Thompson Creek or Edmundson Creek. *Note: Permits are required for any work along streams.*
- Encourage or require strong local buffer ordinances.

Additional Strategies

- Better community planning and MS4 oversight for the impacts of development on small streams, especially development in growing areas such as Milan with Wolf Creek, Huntingdon with Beaver Creek, and Martin with Cane Creek.

6.3.B.i.c. From Agriculture and Silviculture. The Water Quality Control Act exempts normal agricultural and silvicultural practices that do not result in a point source discharge. Nevertheless, efforts are being made to address impacts due to these exempted practices.

The Master Logger Program has been in place for several years to train loggers how to install Best Management Practices that lessen the impact of logging activities on streams. Recently, laws and regulations established the authority for the Commissioners of the Departments of Environment and Conservation and of Agriculture to stop the logging operation that, upon failing to install these BMPs, is causing impacts to streams.

Since the Dust Bowl era, the agriculture community has strived to protect the soil from wind and water erosion. Agencies such as the Natural resources Conservation Service (NRCS), the University of Tennessee Agricultural Extension Service, and the Tennessee Department of Agriculture are striving to identify better ways of farming, to educate the farmers, and to install the methods that address the sources of some of the impacts due to agriculture. Cost sharing is available for many of these measures.

The University of Tennessee's Research and Education Center at Milan on the Wolf Creek is a international leader in the development and promotion of NoTill techniques to avoid soil loss from cropping.

Many sediment problems traceable to agricultural practices also involve riparian loss due to row cropping or pasture clearing for grazing. Lack of vegetated buffers along stream corridors is a problem in some areas of the South Fork Obion River Watershed, due both to agricultural and residential/commercial land uses. Many streams, like the Rutherford Fork of the Obion River, could benefit from the establishment of more extensive riparian buffer zones.

6.3.B.i.d. From Point Sources. Several permitted discharges within the South Fork of the Obion River discharge suspended solids under the conditions of an NPDES permit and are reviewed during the watershed cycle for reissuance. A few will also have limits on settleable solids. Those facilities with solids restrictions are Milan, Rutherford, Kenton, Greenfield, Gleason and McKenzie.

6.3.B.ii. Pathogen Contamination.

Possible sources of pathogens are inadequate or failing septic tank systems, overflows or breaks in public sewer collection systems, poorly disinfected discharges from sewage treatment plants, and fecal matter from pets, livestock and wildlife washed into streams and storm drains. When fecal bacterial levels are shown to be consistently elevated to dangerously high levels, especially in streams with high potential for recreational uses, the division must post signage along the creek warning the public to avoid contact. Once pathogen sources have been identified and corrected, and pathogen level reductions are documented, the posting is lifted.

Permits issued by the Division of Water Pollution Control regulate discharges from point sources and require adequate control for these sources. Individual homes are required to have subsurface, on-site treatment (i.e., septic tank and field lines) if public sewers are not available. The Division of Ground Water Protection within the Jackson Environmental Field Office regulates septic tanks and field lines. In addition to discharges to surface waters, businesses may employ subsurface treatment for domestic wastewater or surface discharge of treated process wastewater. The Division of Water Pollution Control regulates surface water discharges and near-surface land application of treated wastewater.

Currently, only one stream in the South Fork Obion River Watershed is known to have excessive pathogen contamination. Clear Creek is impacted by urban areas, with contributions of bacterial contamination possibly coming from livestock, storm water runoff, sewage collection system leaks, or treatment plant operation failures.
Some measures that may be necessary to control pathogens are:

Voluntary Activities

- Clean up pet waste.
- Repair failed septic systems.
- Establish off-channel watering of livestock.
- Limit livestock access to streams and restrict stream crossings.
- Improve and educate on the proper management of animal waste from confined feeding operations.

Regulatory Strategies

- *Strengthen enforcement of regulations governing on-site wastewater treatment.*
- Determine timely and appropriate enforcement for non-complying sewage treatment plants, large and small, and their collection systems. The city of McKenzie is currently under a Commission's Order to address several problems at the treatment plant and in the collection system. Nearly all have been corrected and a sewer rehabilitation project is underway. The efforts should improve Clear Creek.
- Identify Concentrated Animal Feeding Operations not currently permitted.
- Develop and enforce leash laws and controls on pet fecal material.

Additional Strategies

- Develop intensive planning in areas where sewer is not available and treatment by subsurface disposal is not an option due to poor soils, floodplains, or high water tables.
- Develop and enforce leash laws and controls on pet fecal material
- Greater efforts by sewer utilities to identify leaking lines or overflowing manholes An example is that of Clear Creek and the City of McKenzie.
- Review the pathogen limits in discharge permits to determine the need for further restriction, which is currently underway with Clear Creek.

6.3.B.iii. Excessive Nutrients and/or Dissolved Oxygen Depletion.

These two impacts are usually listed together because high nutrients often contribute to low dissolved oxygen within a stream. Since nutrients often have the same source as pathogens, the measures previously listed can also address many of these problems. Elevated nutrient loadings are also often associated with urban runoff from impervious surfaces, from fertilized lawns and croplands, and faulty sewage disposal processes. Nutrients are often transported with sediment, so many of the measures designed to reduce sediment runoff will also aid in preventing organic enrichment of streams and lakes.

Dissolved oxygen depletion can also be due to the discharge of other biodegradable materials. These are limited in NPDES permits as ammonia and as either Biological Oxygen Demand (BOD) or Carbonaceous Oxygen Demand (CBOD).

Some sources of nutrients can be addressed by:

Voluntary Activities

- Educate homeowners and lawn care companies in the proper application of fertilizers.
- Encourage landowners, developers, and builders to leave stream buffer zones. Streamside vegetation can filter out many nutrients and other pollutants before they reach the stream. These riparian buffers are also vital along livestock pastures. Many streams in the South Fork Obion River Watershed within agricultural areas would benefit from additional riparian buffers.
- Use grassed drainage ways that can remove fertilizer before it enters streams.
- Use native plants for landscaping since they don't require as much fertilizer and water.
- Develop better overall storm water management in urban and residential areas, including retrofitting existing commercial lots, homes, and roadways with storm water quality and quantity BMPs. This would especially improve the urban streams and lakes.

Physical changes to streams can prevent them from providing enough oxygen to biodegrade the materials that are naturally present. A few additional actions can address this problem:

- Maintain shade over a stream. Cooler water can hold more oxygen and retard the growth of algae. As a general rule, all stream channels suffer from some canopy removal. An intact riparian zone also acts as a buffer to filter out nutrient loads before they enter the water.
- Discourage impoundments. Ponds and lakes do not aerate water, and cause many water quality problems downstream. *Note: Permits may be required for any work on a stream, including impoundments.* In fact, the permit issued for the impoundment of Reedy Creek for the Carroll County Lake contained many requirements intended to protect the creek downstream of the dam.

Regulatory Strategies.

- Strengthen enforcement of regulations governing on-site wastewater treatment.
- Impose more stringent permit limits for nutrients discharged from sewage treatment plants
- Impose timely and appropriate enforcement for noncomplying sewage treatment plants, large and small, and their collection systems as was needed for Clear Creek.
- Identify Concentrated Animal Feeding Operations (CAFO) not currently permitted.
- Identify any Animal Feeding Operations (AFO) that contribute to stream impacts and declare them as a CAFO requiring a permit.
- Support and train local MS4 programs and other programs within municipalities to deal with storm water pollution issues and require additional storm runoff quality control measures.
- Require nutrient management plans for all golf courses, campuses or other large landscaped facility. Currently, nutrient management plans are prepared for farm operations and are required for Confined Animal Feeding Operations.

Additional Strategies

- Encourage TDA-, UT- and NRCS-sponsored educational programs targeted to agricultural landowners and aimed at better nutrient management, as well as information on technology-based application tools.

6.3.B.iv. Toxins and Other Materials.

Although some toxic substances are discharged directly into waters of the state from a point source, much of these materials are washed in during rainfalls from an upland location, or via improper waste disposal that contaminates groundwater. More stringent inspection and regulation of permitted industrial facilities, and local storm water quality initiatives and regulations, could help avoid contaminated runoff reaching state waters. Johns Creek, Halls Branch and Wolf Creek are all impacted by materials released or improperly disposed of from the production of ammunition at the Milan Army Ammunition Plant. The Department of the Army, the EPA and TDEC's Division of Remediation are taking measures to address this contamination.

Individuals may also cause contaminants to enter streams by activities that may be attributed to apathy or the lack of knowledge or civility. Litter in roadside ditches,

garbage bags tossed over bridge railings, paint brushes washed off over storm drains, and oil drained into ditches are all blatant examples of pollution in streams.

Some of these problems can be addressed by:

Voluntary Activities

- Provide public education.
- Paint warnings on storm drains that connect to a stream.
- Sponsor community clean-up days.
- Landscape public areas.
- Encourage public surveillance of their streams and reporting of dumping activities to their local authorities.

Regulatory Strategies

- Continue to prohibit illicit discharges to storm drains and to search them out.
- Strengthen litter law enforcement at the local level.
- Increase the restrictions on storm water runoff from industrial facilities.

6.3.B.v. Habitat Alteration.

The alteration of the habitat within a stream can have severe consequences. Whether it is the removal of the vegetation providing a root system network for holding soil particles together, the release of sediment, which increases the bed load and covers benthic life and fish eggs, the removal of gravel bars, “cleaning out” creeks with heavy equipment, or the impounding of the water in ponds and lakes, many alterations impair the use of the stream for designated uses. Habitat alteration also includes the draining or filling of wetlands.

Many streams within the South Fork Obion River Watershed suffer from some degree of habitat alteration, especially riparian loss and bank disturbances from agricultural practices. Thompson Creek, Dolan Creek, Reedy Creek, Terrell Branch, Buckor Ditch, the Middle Fork Obion River, and the Rutherford Fork Obion River are all impacted by habitat alteration.

Although large-scale public projects such as channelization and highway construction can alter significant portions of streams, individual landowners and developers are responsible for the vast majority of stream alterations. Some measures that can help address these problems are:

Voluntary Activities

- Sponsor litter pickup days to remove litter that might enter streams
- Organize stream cleanups removing trash, limbs and debris before they cause blockage.
- Avoid use of heavy equipment to “clean out” streams. *Instream work other than debris removal will require an Aquatic Resource Alteration Permit (ARAP).*
- Plant native vegetation along streams to stabilize banks and provide habitat
- Encourage developers to avoid extensive use of culverts in streams.

Regulatory Strategies

- Restrict modification of streams by means such as culverting, lining, or impounding.
- Require mitigation for impacts to streams and wetlands when modifications are allowed.
- Increased enforcement may be needed when violations of current regulations occur.

6.3.B.vi. Storm Water.

MS4 discharges are regulated through the Phase I or II NPDES-MS4 permits. These permits require the development and implementation of a Storm Water Management Program (SWMP) that will reduce the discharge of pollutants to the maximum extent practicable and not cause or contribute to violations of state water quality standards. The NPDES General Permit for Discharges from Phase I and II MSF facilities can be found at:

http://www.state.tn.us/environment/wpc/stormh2o/.

For discharges into impaired waters, the MS4 General Permit requires that SWMPs include a section describing how discharges of pollutants of concern will be controlled to ensure that they do not cause or contribute to instream exceedences of water quality standards. Specific measurements and BMPs to control pollutants of concern must also be identified. In addition, MS4s must implement the proposed waste load allocation provisions of an applicable TMDL (i.e., siltation/habitat alteration, pathogens) and describe methods to evaluate whether storm water controls are adequate to meet the waste load allocation. In order to evaluate SWMP effectiveness and demonstrate compliance with specified waste load allocations, MS4s are encouraged to develop and implement appropriate monitoring programs by the designated date.

Some storm sewer discharges are not regulated through the NPDES MS4 program. Strategies to address runoff from in these urban areas include adapting Tennessee Growth Readiness Program (TGRP) educational materials to the watershed. TGRP is a statewide program built on existing best management practices from the Nonpoint Education for Municipal Officials program and the Center for Watershed Protection. TGRP developed the program to provide communities and counties with tools to design economically viable and watershed friendly developments. The program assists community leaders in reviewing current land use practices, determining impacts of imperviousness on watershed functions, and allowing them to understand the economics of good watershed management and site design.

6.4. PERMIT REISSUANCE PLANNING

Under the *Tennessee Water Quality Control Act*, municipal, industrial and other dischargers of wastewater must obtain a permit from the Division. Approximately 1,700 permits have been issued in Tennessee under the federally delegated National Pollutant Discharge Elimination System (NPDES). These permits establish pollution control and monitoring requirements based on protection of designated uses through implementation of water quality standards and other applicable state and federal rules.

The following three sections provide specific information on municipal, industrial, and water treatment plant active permit holders in the South Fork Obion River Watershed. Compliance information was obtained from EPA's Permit Compliance System (PCS). All data was queried for a five-year period between January 1, 2001 and December 31, 2006. PCS can be accessed publicly through EPA's Envirofacts website. This website provides access to several EPA databases to provide the public with information about environmental activities that may affect air, water, and land anywhere in the United States:

http://www.epa.gov/enviro/html/ef_overview.html

Stream Segment information, including designated uses and impairments, are described in detail in Chapter 3, *Water Quality Assessment of the South Fork Obion River Watershed.*

6.4.A. Municipal Permits

TN0020613 McKenzie STP

Discharger rating: Major
City: McKenzie
County: Carroll
EFO Name: Jackson
Issuance Date: 6/30/05
Expiration Date: 6/30/10
Receiving Stream(s): Unnamed tributary at mile 2.8 to Clear Creek at mile 2.4
HUC-12: 080102030102
Effluent Summary: Treated municipal wastewater from Outfall 001
Treatment system: WAS to aerobic digester to drybeds to land application sites

Segment	TN08010203001_0700
Name	Clear Creek
Size	3.6
Unit	Miles
First Year on 303(d) List	2002
Designated Uses	Irrigation (Supporting), Fish and Aquatic Life (Non-Supporting), Recreation (Non-Supporting), Livestock Watering and Wildlife (Supporting)
Causes	Escherichia coli, Oxygen, Dissolved, Physical substrate habitat alterations, Sedimentation/Siltation
Sources	Upstream Impoundments (e.g., Pl-566 NRCS Structures), Channelization, Source Unknown

Table 6-1. Stream Segment Information for McKenzie STP.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Ag (T)	All Year	0.0009	mg/L	DMax Conc	Semi-annually	Composite	Effluent
Ammonia as N (Total)	Summer	1.6	mg/L	DMax Conc	4/Week	Composite	Effluent
Ammonia as N (Total)	Summer	20	lb/day	WAvg Load	4/Week	Composite	Effluent
Ammonia as N (Total)	Summer	1.2	mg/L	WAvg Conc	4/Week	Composite	Effluent
Ammonia as N (Total)	Summer	0.8	mg/L	MAvg Conc	4/Week	Composite	Effluent
Ammonia as N (Total)	Summer	13.3	lb/day	MAvg Load	4/Week	Composite	Effluent
Ammonia as N (Total)	Winter	3.2	mg/L	DMax Conc	4/Week	Composite	Effluent
Ammonia as N (Total)	Winter	40	lb/day	WAvg Load	4/Week	Composite	Effluent
Ammonia as N (Total)	Winter	1.6	mg/L	MAvg Conc	4/Week	Composite	Effluent
Ammonia as N (Total)	Winter	26.7	lb/day	MAvg Load	4/Week	Composite	Effluent
Ammonia as N (Total)	Winter	2.4	mg/L	WAvg Conc	4/Week	Composite	Effluent
Bypass of Treatment (Occurrences)	All Year		Occurences/ Month	MAvg Load	Continuous	Visual	
CBOD % Removal	All Year	40	Percent	DMin % Removal	3/Week	Calculated	
CBOD % Removal	All Year	85	Percent	MAvg % Removal	3/Week	Calculated	
CBOD5	All Year		mg/L	MAvg Conc	3/Week	Composite	Influent (Raw Sewage)
CBOD5	All Year		mg/L	DMax Conc	3/Week	Composite	Influent (Raw Sewage)
CBOD5	Summer	20	mg/L	DMax Conc	3/Week	Composite	Effluent
CBOD5	Summer	15	mg/L	WAvg Conc	3/Week	Composite	Effluent
CBOD5	Summer	167	lb/day	MAvg Load	3/Week	Composite	Effluent
CBOD5	Summer	10	mg/L	MAvg Conc	3/Week	Composite	Effluent
CBOD5	Summer	250	lb/day	WAvg Load	3/Week	Composite	Effluent
CBOD5	Winter	25	mg/L	DMax Conc	3/Week	Composite	Effluent
CBOD5	Winter	15	mg/L	MAvg Conc	3/Week	Composite	Effluent
CBOD5	Winter	250	lb/day	MAvg Load	3/Week	Composite	Effluent
CBOD5	Winter	20	mg/L	WAvg Conc	3/Week	Composite	Effluent
CBOD5	Winter	334	lb/day	WAvg Load	3/Week	Composite	Effluent
Copper Dissolved (as Cu)	All Year	0.0128	mg/L	MAvg Conc	Semi-annually	Composite	Effluent
Cyanide, Total (CN-)	All Year	0.0047	mg/L	MAvg Conc	Semi-annually	Composite	Effluent
Cyanide, Total (CN-)	All Year	0.0198	mg/L	DMax Conc	Semi-annually	Composite	Effluent
D.O.	All Year	5	mg/L	DMin Conc	Weekdays	Grab	Effluent
E. coli	All Year	941	#/100mL	DMax Conc	3/Week	Grab	Effluent
E. coli	All Year	126	#/100mL	MAvg Geo Mean	3/Week	Grab	Effluent
Flow	All Year		MGD	DMax Load	Daily	Continuous	Effluent
Flow	All Year		MGD	MAvg Load	Daily	Continuous	Influent (Raw Sewage)
Flow	All Year		MGD	MAvg Load	Daily	Continuous	Effluent
Flow	All Year		MGD	DMax Load	Daily	Continuous	Influent (Raw Sewage)
Hg (T)	All Year	5E-05	mg/L	MAvg Conc	Semi-annually	Composite	Effluent
IC25 7day *Ceriodaphnia dubia*	All Year	100	Percent	DMin Conc	Quarterly	Composite	Effluent
IC25 7day Fathead Minnows	All Year	100	Percent	DMin Conc	Quarterly	Composite	Effluent
Nitrogen Total (as N)	All Year		mg/L	MAvg Conc	2/Month	Composite	Effluent
Nitrogen Total (as N)	All Year		mg/L	DMax Conc	2/Month	Composite	Effluent

Table 6-2a.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Overflow Use Occurences	All Year		Occurences/ Month	MAvg Load	Continuous	Visual	Wet Weather
Overflow Use Occurences	All Year		Occurences/ Month	MAvg Load	Continuous	Visual	Non Wet Weather
Phosphorus, Total	All Year		mg/L	MAvg Conc	2/Month	Composite	Effluent
Selenium Dissolved (as Se)	All Year	0.0045	mg/L	MAvg Conc	Semi-annually	Composite	Effluent
Selenium Dissolved (as Se)	All Year	0.018	mg/L	DMax Conc	Semi-annually	Composite	Effluent
Settleable Solids	All Year	1	mL/L	DMax Conc	4/Week	Grab	Effluent
TRC	All Year	0.02	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	45	mg/L	DMax Conc	3/Week	Composite	Effluent
TSS	All Year		mg/L	DMax Conc	3/Week	Composite	Influent (Raw Sewage)
TSS	All Year	667	lb/day	WAvg Load	3/Week	Composite	Effluent
TSS	All Year	40	mg/L	WAvg Conc	3/Week	Composite	Effluent
TSS	All Year	500	lb/day	MAvg Load	3/Week	Composite	Effluent
TSS	All Year		mg/L	MAvg Conc	3/Week	Composite	Influent (Raw Sewage)
TSS	All Year	30	mg/L	MAvg Conc	3/Week	Composite	Effluent
TSS % Removal	All Year	40	Percent	DMin % Removal	3/Week	Calculated	% Removal
TSS % Removal	All Year	85	Percent	MAvg % Removal	3/Week	Calculated	% Removal
Zn (T)	All Year	0.2052	mg/L	MAvg Conc	Monthly	Composite	Effluent
Zn (T)	All Year	0.2035	mg/L	DMax Conc	Monthly	Composite	Effluent
pH	All Year	9	SU	DMax Conc	Weekdays	Grab	Effluent
pH	All Year	6	SU	DMin Conc	Weekdays	Grab	Effluent

Table 6-2b.

Tables 6-2a-b. Permit Limits for McKenzie STP.

Compliance History:
The following numbers of exceedences were noted in PCS:

- 12 Zinc
- 18 Whole Effluent Toxicity Tests
- 6 Ammonia
- 4 Total Chlorine
- 2 Carbonaceous Biological Oxygen Demand (CBOD)
- 3 Fecal coliform
- 1 Carbonaceous Oxygen Demand (COD)
- 1 Cyanide
- 1 Silver
- 111 Overflows

Enforcement:
Commissioner's Order # 04-0583 issued 1/24/06 for having well over 200 permit violations within 2 years, including 40+ overflows. They are on the EPA's watch list.

Comments:
The city of McKenzie is currently under a Commission's Order primarily for ammonia exceedences and overflows. Nearly all have been corrected and a sewer rehabilitation project is underway. The efforts should improve Clear Creek. McKenzie operates a Schreiber system. They think some of their problems have resulted from having to keep too much sludge in the system. A belt press was purchased recently and should enable the city to keep up with its sludge. Based on a conversation with a former employee of an industry that closed in December, they think that that industry was the source of their zinc problems.

3/23/07 Compliance Evaluation Inspection: Oil is making its way through the WWTP. CSI has not admitted the oil came from them but they have been cooperative. McKenzie says that lab results received 03/22/07 show a "perfect match" between oil from CSI and oil from McKenzie's Como St. lift station. CSI is the only industry on the Como St. lift station. The scum pump is down on one of McKenzie's two clarifiers and it is 80% covered with scum. The 2 aeration basins are 2/3 covererd with scum. The effluent is cloudy. NH3 is abnormally high. McKenzie's Water Superintendent was working on enforcement.

2/27/07 Technical Assictance Visit (TAV) and File Review: On the above date Jackson EFO-WPC personnel conducted a TAV pretreatment inspection at the Mckenzie WWTP. Discussed the status of the Pretreatment program. CMI, a problematic metal plater, went out of business and left town. The Mckenzie Industrial Developement, Inc., which owns the building, has gotten Shomaker Lumber Co. to clean up the wastewater left inside the building in exchange for using the building for storage of lumber. Shomaker plans to pretreat the wastewater and discharge into the sewer. The sewer manhole is plugged at this time until it can be shown the wastewater is in compliance. The files and reords appeared to be in good order.

TN0026174 Huntingdon- Barnett Street Lagoon

Discharger rating: Minor
City: Huntingdon
County: Carroll
EFO Name: Jackson
Issuance Date: 10/31/05
Expiration Date: 6/30/10
Receiving Stream(s): Unnamed tributary at mile 2.8 to Clear Creek at mile 2.4
HUC-12: 080102030101
Effluent Summary: Treated municipal wastewater from Outfall 001
Treatment system: Lagoon system

Segment	TN08010203010_2000
Name	Beaver Creek
Size	3.4
Unit	Miles
First Year on 303(d) List	1990
Designated Uses	Industrial Water Supply (Supporting), Fish and Aquatic Life (Non-Supporting), Recreation (Not Assessed), Irrigation (Supporting), Livestock Watering and Wildlife (Supporting)
Causes	Sedimentation/Siltation, Oxygen, Dissolved, Phosphate
Sources	Municipal Point Source Discharges, Discharges from Municipal Separate Storm Sewer Systems (MS4), Non-irrigated Crop Production

Table 6-3. Stream Segment Information for Huntingdon- Barnett Street Lagoon.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Ammonia as N (Total)	All Year		mg/L	MAvg Conc	Weekly	Grab	Effluent
Ammonia as N (Total)	All Year		mg/L	MAvg Conc	3/Week	Composite	Influent (Raw Sewage)
Ammonia as N (Total)	Summer	20	mg/L	DMax Conc	Weekly	Grab	Effluent
Ammonia as N (Total)	Summer	38	lb/day	WAvg Load	Weekly	Grab	Effluent
Ammonia as N (Total)	Summer	15	mg/L	WAvg Conc	Weekly	Grab	Effluent
Ammonia as N (Total)	Summer	10	mg/L	MAvg Conc	Weekly	Grab	Effluent
Ammonia as N (Total)	Summer	50	lb/day	DMax Load	Weekly	Grab	Effluent
Ammonia as N (Total)	Summer	25	lb/day	MAvg Load	Weekly	Grab	Effluent
Ammonia as N (Total)	Winter		mg/L	MAvg Conc	Weekly	Grab	Effluent
CBOD % Removal	All Year	65	Percent	MAvg % Removal	Weekly	Calculated	%Removal
CBOD5	All Year	125	lb/day	DMax Load	Weekly	Grab	Effluent
CBOD5	All Year	60	mg/L	DMax Conc	2/Month	Grab	Effluent
CBOD5	All Year	100	lb/day	MAvg Load	2/Month	Grab	Effluent
CBOD5	All Year	50	mg/L	WAvg Conc	2/Month	Grab	Effluent
CBOD5	All Year	40	mg/L	MAvg Conc	2/Month	Grab	Effluent
D.O.	All Year	1	mg/L	DMin Conc	Weekdays	Grab	Effluent
E. coli	All Year	941	#/100mL	DMax Conc	Weekly	Grab	Effluent
E. coli	All Year	126	#/100mL	MAvg Geo Mean	Weekly	Grab	Effluent
IC25 7day *Ceriodaphnia dubia*	All Year	2.4	Percent	DMin Conc	Quarterly	Composite	Effluent
IC25 7day Fathead Minnows	All Year	2.4	Percent	DMin Conc	Quarterly	Composite	Effluent
Settleable Solids	All Year	1	mL/L	DMax Conc	2/Week	Grab	Effluent
TRC	All Year	0.7	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	120	mg/L	DMax Conc	Weekly	Grab	Effluent
TSS	All Year	275	lb/day	WAvg Load	Weekly	Grab	Effluent
TSS	All Year	110	mg/L	WAvg Conc	Weekly	Grab	Effluent
TSS	All Year	250	lb/day	MAvg Load	Weekly	Grab	Effluent
TSS	All Year	300	lb/day	DMax Load	Weekly	Grab	Effluent
TSS	All Year	100	mg/L	MAvg Conc	Weekly	Grab	Effluent
pH	All Year	9	SU	DMax Conc	2/Week	Grab	Effluent
pH	All Year	6	SU	DMin Conc	2/Week	Grab	Effluent

Table 6-4. Permit Limits for Huntingdon- Barnett Street Lagoon.

Compliance History:
The following numbers of exceedences were noted in PCS:

- 3 Total Suspended Solids
- 1 Carbonaceous Biological Oxygen Demand (CBOD)
- 1 Bypass

Enforcement:
Notice of Violation issued on June 15, 2007, for failure to inspect each Significant Industrial User (SIU) every twelve months.

Comments:
Two cell aerated lagoon. This lagoon system was upgraded several years ago. Compliance Evaluation Inspection 10/30/06: Four of the seven lift stations inspected had excess grease in the wet wells. There were two pumps that would not work properly and one shroud that needs to be repaired or replaced. Several aerators at the lagoon would not work, the flow meters need to be calibrated and the fence needs to be cleaned up and repaired. Huntingdon is currently repairing manholes and sliplining portions of the collection system.

3/28/07 Pretreatment Compliance Evaluation Inspection: In Compliance

10/30/06 Compliance Evaluation Inspection: Four of the seven lift stations inspected had excess grease in the wet wells. There were two pumps that would not work properly and one shroud that needs to be repaired or replaced. Several aerators at the lagoon would not work, the flow meters need to be calibrated and the fence needs to be cleaned up and repaired. Huntingdon is currently repairing manholes and sliplining portions of the collection system.

12/20/05 Technical Assistance Visit (TAV) and file review: TAV was conducted on 12/20/05 at this facility, with a follow-up in spection on 1/5/06. Some problems with the reissuance of Industrial User (IU) permit were found. One IU, Behlen Mfgr. (CIU) was visited. Some other questions arose about the sampling point and what waste streams were entering the sewer and being sampled.

TN0026166 Huntingdon- Hwy 22 Lagoon

Discharger rating: Minor
City: Huntingdon
County: Carroll
EFO Name: Jackson
Issuance Date: 5/31/05
Expiration Date: 5/30/10
Receiving Stream(s): Beaver Creek Mile 4.2
HUC-12: 080102030101
Effluent Summary: Treated municipal wastewater from Outfall 001
Treatment system: Lagoon

Segment	TN08010203010_2000
Name	Beaver Creek
Size	3.4
Unit	Miles
First Year on 303(d) List	1990
Designated Uses	Industrial Water Supply (Supporting), Fish and Aquatic Life (Non-Supporting), Recreation (Not Assessed), Irrigation (Supporting), Livestock Watering and Wildlife (Supporting)
Causes	Sedimentation/Siltation, Oxygen, Dissolved, Phosphate
Sources	Municipal Point Source Discharges, Discharges from Municipal Separate Storm Sewer Systems (MS4), Non-irrigated Crop Production

Table 6-5. Stream Segment Information for Huntingdon- Hwy 22 Lagoon.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Ammonia as N (Total)	Summer		mg/L	DMax Conc	Weekly	Grab	Effluent
Ammonia as N (Total)	Summer	10	mg/L	MAvg Conc	Weekly	Grab	Effluent
Ammonia as N (Total)	Summer	15	mg/L	WAvg Conc	Weekly	Grab	Effluent
Ammonia as N (Total)	Summer	54	lb/day	MAvg Load	Weekly	Grab	Effluent
Ammonia as N (Total)	Summer	81	lb/day	WAvg Load	Weekly	Grab	Effluent
Ammonia as N (Total)	Winter		mg/L	DMax Conc	Weekly	Grab	Effluent
Ammonia as N (Total)	Winter		mg/L	MAvg Conc	Weekly	Grab	Effluent
CBOD % Removal	All Year	65	Percent	MAvg % Removal	Weekly	Calculated	% Removal
CBOD5	All Year	60	mg/L	DMax Conc	Weekly	Composite	Effluent
CBOD5	All Year	40	mg/L	MAvg Conc	Weekly	Composite	Effluent
CBOD5	All Year	271	lb/day	WAvg Load	Weekly	Composite	Effluent
CBOD5	All Year	50	mg/L	WAvg Conc	Weekly	Composite	Effluent
CBOD5	All Year	217	lb/day	MAvg Load	Weekly	Composite	Effluent
CBOD5	All Year		mg/L	MAvg Conc	Weekly	Composite	Influent (Raw Sewage)
CBOD5	All Year	325	lb/day	DMax Load	Weekly	Composite	Effluent
CBOD5	All Year		mg/L	DMax Conc	Weekly	Composite	Influent (Raw Sewage)
D.O.	All Year	1	mg/L	DMin Conc	Weekdays	Grab	Effluent
E. coli	All Year	941	#/100mL	DMax Conc	Weekly	Grab	Effluent
E. coli	All Year	126	#/100mL	MAvg Geo Mean	Weekly	Grab	Effluent
Settleable Solids	All Year	1	mL/L	DMax Conc	2/Week	Grab	Effluent
TRC	All Year	0.4	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	120	mg/L	DMax Conc	2/Month	Grab	Effluent
TSS	All Year	651	lb/day	DMax Load	2/Month	Grab	Effluent
TSS	All Year	100	mg/L	MAvg Conc	2/Month	Grab	Effluent
TSS	All Year	110	mg/L	WAvg Conc	2/Month	Grab	Effluent
TSS	All Year	596	lb/day	WAvg Load	2/Month	Grab	Effluent
TSS	All Year	542	lb/day	MAvg Load	2/Month	Grab	Effluent
pH	All Year	10	SU	DMax Conc	2/Week	Grab	Effluent
pH	All Year	6	SU	DMin Conc	2/Week	Grab	Effluent

Table 6-6. Permit Limits for Huntingdon- Hwy 22 Lagoon.

Compliance History:
The following numbers of exceedences were noted in PCS:

- 12 Carbonaceous Biological Demand (CBOD)
- 5 Total Suspended Solids (TSS)
- 3 Ammonia
- 1 pH
- 1 Fecal coliform
- 1 Dissolved Oxygen
- 9 Bypasses

Comments:
Town of Clarksburg pumps 20,000 GPD to lagoon. A two-cell lagoon which last year was upgraded in anticipation of a proposed industrial park and additional flow from the Town of Clarksburg. The upgrade included the addition of aerators, a new sampler, etc. It seems to be working well.

TN0062201 Trezevant STP

Discharger rating: Minor
City: Trezevant
County: Carroll
EFO Name: Jackson
Issuance Date: 6/30/05
Expiration Date: 6/30/10
Receiving Stream(s): Reedy Creek at mile 4.4
HUC-12: 080102030104
Effluent Summary: Treated municipal wastewater from Outfall 001
Treatment system: Lagoon system

Segment	TN08010203007_1000
Name	Reedy Creek
Size	19.3
Unit	Miles
First Year on 303(d) List	2004
Designated Uses	Fish and Aquatic Life (Non-Supporting), Recreation (Not Assessed), Irrigation (Supporting), Livestock Watering and Wildlife (Supporting)
Causes	Physical substrate habitat alterations, Sedimentation/Siltation
Sources	Non-irrigated Crop Production

Table 6-7. Stream Segment Information for Trezevant STP.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Ammonia as N (Total)	All Year	10	mg/L	DMax Conc	Weekly	Composite	Effluent
Ammonia as N (Total)	All Year	12	lb/day	DMax Load	Weekly	Composite	Effluent
Ammonia as N (Total)	All Year	7	mg/L	MAvg Conc	Weekly	Composite	Effluent
Ammonia as N (Total)	All Year	5	mg/L	WAvg Conc	Weekly	Composite	Effluent
Ammonia as N (Total)	All Year	8	lb/day	MAvg Load	Weekly	Composite	Effluent
CBOD % Removal	All Year	65	Percent	MAvg % Removal	Weekly	Calculated	% Removal
CBOD5	All Year	60	mg/L	DMax Conc	Weekly	Composite	Effluent
CBOD5	All Year	55	mg/L	MAvg Conc	Weekly	Composite	Effluent
CBOD5	All Year	75	lb/day	MAvg Load	Weekly	Composite	Effluent
CBOD5	All Year	45	mg/L	DMin Conc	Weekly	Composite	Effluent
CBOD5	All Year	92	lb/day	DMax Load	Weekly	Composite	Effluent
D.O.	All Year	1	mg/L	DMin Conc	Weekdays	Grab	Effluent
Fecal Coliform	All Year	1000	#/100mL	DMax Conc	Weekly	Grab	Effluent
Fecal Coliform	All Year	200	#/100mL	MAvg Geo Mean	Weekly	Grab	Effluent
Settleable Solids	All Year	1	mL/L	DMax Conc	Weekdays	Grab	Effluent
TRC	All Year	0.27	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	120	mg/L	DMax Conc	Weekly	Composite	Effluent
TSS	All Year	183	lb/day	DMax Load	Weekly	Composite	Effluent
TSS	All Year	100	mg/L	WAvg Conc	Weekly	Composite	Effluent
TSS	All Year	167	lb/day	MAvg Load	Weekly	Composite	Effluent
TSS	All Year	110	mg/L	MAvg Conc	Weekly	Composite	Effluent
pH	All Year	9	SU	DMax Conc	Weekdays	Grab	Effluent
PH	All Year	6	SU	DMin Conc	Weekdays	Grab	Effluent

Table 6-8. Permit Limits for Trezevant STP.

Compliance History:
The following numbers of exceedences were noted in PCS:

- 18 Ammonia
- 9 Total Chlorine
- 3 pH
- 2 Fecal coliform
- 2 Carbonaceous Oxygen Demand (COD)
- 1 Settleable Solids
- 1 Carbonaceous Biological Oxygen Demand (CBOD)
- 1 Total Suspended Solids (TSS)
- 6 Bypasses
- 11 Overflows

Comments:
Trezevant operates a small, aerated, 2-cell lagoon. It is usually able to go a few months each year without discharging. Trezevant will occasionally have an ammonia problem.

Compliance Evaluation Inspection March 2, 2007. The operator, Tony Curtis put approximately 40 grass carp in the first cell of the lagoon and approximately 20 in the final cell to control duckweed. All the duckweed is gone from the first cell.

Jackson EFO personnel told Trezevant to run fecal coliform from a grab instead of a composite sample. Also discussed calibration logs, bench sheets, and other lab protocols. Trezevant is experiencing NH3 problems about once a year during cold weather.

TN0062227 Rutherford Lagoon

Discharger rating: Minor
City: Rutherford
County: Gibson
EFO Name: Jackson
Issuance Date: 1/31/07
Expiration Date: 1/30/10
Receiving Stream(s): Rutherford Fork of Obion River at mile 9.8
HUC-12: 080102030606
Effluent Summary: Treated domestic wastewater from Outfall 001
Treatment system: Lagoon

Segment	TN08010203032_1000
Name	Rutherford Fork Obion River
Size	19.9
Unit	Miles
First Year on 303(d) List	2004
Designated Uses	Recreation (Not Assessed), Irrigation (Supporting), Livestock Watering and Wildlife (Supporting), Fish and Aquatic Life (Non-Supporting)
Causes	Physical substrate habitat alterations, Sedimentation/Siltation
Sources	Channelization, Non-irrigated Crop Production

Table 6-9. Stream Segment Information for Rutherford Lagoon.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
BOD % removal	All Year	65	Percent	MAvg % Removal	Weekly	Calculated	% Removal
BOD5	All Year	65	mg/L	DMax Conc	Weekly	Grab	Effluent
BOD5	All Year	195	lb/day	DMax Load	Weekly	Grab	Effluent
BOD5	All Year	150	lb/day	WAvg Load	Weekly	Grab	Effluent
BOD5	All Year	135	lb/day	MAvg Load	Weekly	Grab	Effluent
BOD5	All Year	60	mg/L	WAvg Conc	Weekly	Grab	Effluent
BOD5	All Year	45	mg/L	MAvg Conc	Weekly	Grab	Effluent
Bypass of Treatment (occurrences)	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Wet Weather
D.O.	All Year	1	mg/L	DMin Conc	Weekdays	Grab	Effluent
E. coli	All Year	941	#/100mL	MAvg Ari Mean	Weekly	Grab	Effluent
E. coli	All Year	126	#/100mL	MAvg Geo Mean	Weekly	Grab	Effluent
Overflow Use Occurences	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Wet Weather
Overflow Use Occurences	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Non Wet Weather
Settleable Solids	All Year	1	mL/L	DMax Conc	Weekdays	Grab	Effluent
TRC	All Year	0.5	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	120	mg/L	DMax Conc	Weekly	Grab	Effluent
TSS	All Year	300	lb/day	MAvg Load	Weekly	Grab	Effluent
TSS	All Year	360	lb/day	DMax Load	Weekly	Grab	Effluent
TSS	All Year	330	lb/day	WAvg Load	Weekly	Grab	Effluent
TSS	All Year	100	mg/L	WAvg Conc	Weekly	Grab	Effluent
TSS	All Year	110	mg/L	MAvg Conc	Weekly	Grab	Effluent
pH	All Year	9	SU	DMax Conc	Weekdays	Grab	Effluent
pH	All Year	6	SU	DMin Conc	Weekdays	Grab	Effluent

Table 6-10. Permit Limits for Rutherford Lagoon.

Compliance History:
The following numbers of exceedences were noted in PCS:

- 1 Total Chlorine
- 1 Biological Oxygen Demand (BOD)
- 1 Settleable Solids

Enforcement:
Notice of Violation for expired permit on 8/31/05.

Notice of Violation issued on June 15, 2007 - Discharge Monitoring Reports (DMRs) for the reporting months beginning January 2007 to present as required by Part I of the permit have not been received.

Comments:
Inflow and infiltration problems in the collection system. In the process of repairing the aerators in the lagoon.

Compliance Evaluation Inspection on February 7, 2007: New Mayor, Casey Harris. Bids have been open for replacement of lagoon, which was damaged by Spring Tornado. No influent flow meter. Two lines enter the lagoon. There is no common line to install one influent flow meter. Signature has been changed on NPDES permit application to reflect new mayor, Casey Harris.

Compliance Evaluation Inspection on May 16, 2007: Reconnaissance on lagoon showed the chlorinator to be out, the flow meter needed calibrating, chlorine contact chamber needed the railing repaired, foot bridge to effluent box needed to be constructed and the steps to the influents structure needed replacement. Recommended lab work for BOD, TSS and E. coli to be contracted out to an outside lab for the time being.

TN0062022 Bradford Lagoon

Discharger rating: Minor
City: Bradford
County: Gibson
EFO Name: Jackson
Issuance Date: 12/29/05
Expiration Date: 12/29/10
Receiving Stream(s): South Fork of the Obion River at mile 9.7
HUC-12: 080102030105
Effluent Summary: Treated domestic wastewater from Outfall 001
Treatment system: Lagoon

Segment	TN08010203001_1000
Name	South Fork Obion River
Size	26
Unit	Miles
First Year on 303(d) List	2004
Designated Uses	Fish and Aquatic Life (Non-Supporting), Recreation (Supporting), Irrigation (Supporting), Livestock Watering and Wildlife (Supporting)
Causes	Physical substrate habitat alterations, Sedimentation/Siltation
Sources	Channelization, Non-irrigated Crop Production

Table 6-11. Stream Segment Information for Bradford Lagoon.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
BOD % removal	All Year	65	Percent	MAvg % Removal	Weekly	Calculated	% Removal
BOD5	All Year	65	mg/L	DMax Conc	Weekly	Grab	Effluent
BOD5	All Year	157	lb/day	DMax Load	Weekly	Grab	Effluent
BOD5	All Year	121	lb/day	WAvg Load	Weekly	Grab	Effluent
BOD5	All Year	109	lb/day	MAvg Load	Weekly	Grab	Effluent
BOD5	All Year	50	mg/L	WAvg Conc	Weekly	Grab	Effluent
BOD5	All Year	45	mg/L	MAvg Conc	Weekly	Grab	Effluent
Bypass of Treatment (Occurrences)	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Wet Weather
D.O.	All Year	1	mg/L	DMin Conc	Weekdays	Grab	Effluent
E. coli	All Year	941	#/100mL	DMax Conc	Weekly	Grab	Effluent
E. coli	All Year	126	#/100mL	MAvg Geo Mean	Weekly	Grab	Effluent
Flow	All Year		MGD	MAvg Load	Daily	Continuous	Effluent
Flow	All Year		MGD	DMax Load	Daily	Continuous	Effluent
Overflow Use Occurences	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Non Wet Weather
Overflow Use Occurences	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Wet Weather
Settleable Solids	All Year	1	mL/L	DMax Conc	2/Week	Grab	Effluent
TRC	All Year	2	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	120	mg/L	DMax Conc	Weekly	Grab	Effluent
TSS	All Year	242	lb/day	MAvg Load	Weekly	Grab	Effluent
TSS	All Year	290	lb/day	DMax Load	Weekly	Grab	Effluent
TSS	All Year	266	lb/day	WAvg Load	Weekly	Grab	Effluent
TSS	All Year	100	mg/L	MAvg Conc	Weekly	Grab	Effluent
TSS	All Year	110	mg/L	WAvg Conc	Weekly	Grab	Effluent
pH	All Year	9	SU	DMax Conc	2/Week	Grab	Effluent
pH	All Year	6	SU	DMin Conc	2/Week	Grab	Effluent

Table 6-12. Permit Limits for Bradford Lagoon.

Compliance History:
The following numbers of exceedences were noted in PCS:

- 7 Biological Oxygen Demand (BOD)
- 4 Total Suspended Solids
- 1 Total Chlorine
- 3 Overflows
- 1 Bypass

Comments:
Facility was significantly damaged in a tornado in 2006. They are in the process of repairing. Inflow and infiltration problems getting worked on as money becomes available.

TN0062359 Kenton Lagoon

Discharger rating: Minor
City: Kenton
County: Obion
EFO Name: Jackson
Issuance Date: 7/1/07
Expiration Date: 2/28/10
Receiving Stream(s): Rutherford Fork Obion River Mile 4.5
HUC-12: 080102030606
Effluent Summary: Treated municipal wastewater from Outfall 001
Treatment system: Lagoon

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
BOD % removal	All Year	65	Percent	MAvg % Removal	Weekly	Calculated	% Removal
BOD5	All Year	70	mg/L	DMax Conc	Weekly	Grab	Effluent
BOD5	All Year	128	lb/day	DMax Load	Weekly	Grab	Effluent
BOD5	All Year	110	lb/day	DMax Load	Weekly	Grab	Effluent
BOD5	All Year	83	lb/day	MAvg Load	Weekly	Grab	Effluent
BOD5	All Year	60	mg/L	WAvg Conc	Weekly	Grab	Effluent
BOD5	All Year	45	mg/L	MAvg Conc	Weekly	Grab	Effluent
D.O.	All Year	1	mg/L	DMin Conc	Weekdays	Grab	Effluent
Fecal Coliform	All Year	1000	#/100mL	DMax Conc	Weekly	Grab	Effluent
Fecal Coliform	All Year	200	#/100mL	MAvg Geo Mean	Weekly	Grab	Effluent
Settleable Solids	All Year	1	mL/L	DMax Conc	2/Week	Grab	Effluent
TRC	All Year	1	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	120	mg/L	DMax Conc	Weekly	Grab	Effluent
TSS	All Year	220	lb/day	DMax Load	Weekly	Grab	Effluent
TSS	All Year	100	mg/L	WAvg Conc	Weekly	Grab	Effluent
TSS	All Year	110	mg/L	MAvg Conc	Weekly	Grab	Effluent
TSS	All Year	183	lb/day	MAvg Load	Weekly	Grab	Effluent
pH	All Year	9	SU	DMax Conc	2/Week	Grab	Effluent
pH	All Year	6	SU	DMin Conc	2/Week	Grab	Effluent

Table 6-13. Permit Limits for Kenton Lagoon.

Compliance History:
The following numbers of exceedences were noted in PCS:

- 7 Biological Oxygen Demand (BOD)
- 1 pH

Enforcement:
Notice of Violation issued June 11, 2007 - Discharge Monitoring Reports (DMRs) for the reporting months beginning January 2007 to present as required by Part I of the permit have not been received.

Comments:
Sam Shoulders, operator, telephoned 3/10/06 to say he has an application and will be contacting his contract lab to do the Part B.6 scans to get the application into the EAC-J ASAP. 8/1/06- Sam Shoulders said tornado damaged lagoon in April and delayed application submittal. Inflow and infiltration problems. Influent pump station is subject to flooding.

Compliance Evaluation Inspection on May 14, 2007: Jim Copper has become the certified operator for the City of Kenton after Sam Shoulders left for military duty. This may be a 12-18 month arrangement. Sam left on very short notice so some of the lab work has been sent off to contract lab. BOD, TSS and fecal coliform are presently being done at contract lab. Chlorine, Settleable Solids, DO and pH are being done at the facility.

TN0021717 Dresden- Printing Factory Lagoon

Discharger rating: Minor
City: Dresden
County: Weakley
EFO Name: Jackson
Issuance Date: 1/30/06
Expiration Date: 4/30/10
Receiving Stream(s): Middle Fork-Obion River at mile 18.3
HUC-12: 080102030303
Effluent Summary: Treated municipal wastewater from Outfall 001
Treatment system: Lagoon

Segment	TN08010203015_2000
Name	Middle Fork Obion River
Size	7
Unit	Miles
First Year on 303(d) List	2002
Designated Uses	Fish and Aquatic Life (Non-Supporting), Recreation (Not Assessed), Irrigation (Supporting), Livestock Watering and Wildlife (Supporting)
Causes	Nitrates, Sedimentation/Siltation
Sources	Non-irrigated Crop Production, Channelization

Table 6-14. Stream Segment Information for Dresden- Printing Factory Lagoon.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Ammonia as N (Total)	All Year		mg/L	DMax Conc	Semi-annually	Grab	Effluent
BOD % removal	All Year	65	Percent	MAvg % Removal	Weekly	Calculated	Percent Removal
BOD5	All Year	45	mg/L	DMax Conc	Weekly	Grab	Effluent
BOD5	All Year	55	lb/day	WAvg Load	Weekly	Grab	Effluent
BOD5	All Year	30	mg/L	MAvg Conc	Weekly	Grab	Effluent
BOD5	All Year	40	mg/L	WAvg Conc	Weekly	Grab	Effluent
BOD5	All Year		mg/L	MAvg Load	Weekly	Grab	Influent (Raw Sewage)
BOD5	All Year	42	lb/day	MAvg Load	Weekly	Grab	Effluent
Bypass of Treatment (Occurrences)	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Wet Weather
D.O.	All Year	1	mg/L	DMin Conc	Weekdays	Grab	Effluent
E. coli	All Year	941	#/100mL	DMax Conc	Weekly	Grab	Effluent
E. coli	All Year	126	#/100mL	MAvg Geo Mean	Weekly	Grab	Effluent
Flow	All Year		MGD	MAvg Load	Weekdays	Instantaneous	Influent (Raw Sewage)
Flow	All Year		MGD	DMax Load	Weekdays	Instantaneous	Influent (Raw Sewage)
Nitrite + Nitrate Total (as N)	All Year		mg/L	DMax Conc	Semi-annually	Grab	Effluent
Overflow Use Occurences	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Wet Weather
Overflow Use Occurences	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Non Wet Weather
Phosphorus, Total	All Year		mg/L	DMax Conc	Semi-annually	Grab	Effluent
Settleable Solids	All Year	1	mL/L	DMax Conc	2/Week	Grab	Effluent
TKN – Total Kjeldahl Nitrogen	All Year		mg/L	DMax Conc	Semi-annually	Grab	Effluent
TRC	All Year	2	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	120	mg/L	DMax Conc	Weekly	Grab	Effluent
TSS	All Year	152	lb/day	WAvg Load	Weekly	Grab	Effluent
TSS	All Year	100	mg/L	MAvg Conc	Weekly	Grab	Effluent
TSS	All Year	110	mg/L	WAvg Conc	Weekly	Grab	Effluent
TSS	All Year	138	lb/day	MAvg Load	Weekly	Grab	Effluent
pH	All Year	9	SU	DMax Conc	2/Week	Grab	Effluent
pH	All Year	6	SU	DMin Conc	2/Week	Grab	Effluent

Table 6-15. Permit Limits for Dresden- Printing Factory Lagoon.

Compliance History:
The following numbers of exceedences were noted in PCS:

- 49 Biological Oxygen Demand (BOD)
- 14 pH
- 6 Total Suspended Solids (TSS)
- 1 Dissolved Oxygen

Comments:
Compliance Evaluation Inspection on April 2, 2007: Dresden has purchased two cameras to locate areas of inflow and infiltration. The purchased included a monitoring trailer, which is capable of operating the cameras, and also record what the camera is seeing. Work is continuing to correct areas of inflow and infiltration using Insitu Company.

TN0055794 Dresden High School

Discharger rating: Minor
City: Dresden
County: Weakley
EFO Name: Jackson
Issuance Date: 1/1/06
Expiration Date: 4/30/10
Receiving Stream(s): Unnamed tributary at mile 0.4 to Atkinson Branch at mile 1.4
HUC-12: 080102030303
Effluent Summary: Treated domestic wastewater from Outfall 001
Treatment system: Lagoon

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Ammonia as N (Total)	Summer	2	mg/L	DMax Conc	2/Month	Grab	Effluent
Ammonia as N (Total)	Summer	1	mg/L	MAvg Conc	2/Month	Grab	Effluent
Ammonia as N (Total)	Winter	10	mg/L	DMax Conc	2/Month	Grab	Effluent
Ammonia as N (Total)	Winter	5	mg/L	MAvg Conc	2/Month	Grab	Effluent
CBOD5	Summer	20	mg/L	DMax Conc	2/Month	Grab	Effluent
CBOD5	Summer	10	mg/L	MAvg Conc	2/Month	Grab	Effluent
CBOD5	Winter	35	mg/L	DMax Conc	2/Month	Grab	Effluent
CBOD5	Winter	20	mg/L	MAvg Conc	2/Month	Grab	Effluent
D.O.	All Year	6	mg/L	DMin Conc	Weekdays	Grab	Effluent
E. coli	All Year	941	#/100mL	DMax Conc	2/Month	Grab	Effluent
E. coli	All Year	126	#/100mL	MAvg Geo Mean	2/Month	Grab	Effluent
Flow	All Year		MGD	MAvg Load	Weekdays	Instantaneous	Effluent
Flow	All Year		MGD	DMax Load	Weekdays	Instantaneous	Effluent
Settleable Solids	All Year	1	mL/L	DMax Conc	2/Week	Grab	Effluent
TRC	All Year	0.02	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	45	mg/L	DMax Conc	2/Month	Grab	Effluent
TSS	All Year	30	mg/L	MAvg Conc	2/Month	Grab	Effluent
pH	All Year	9	SU	DMax Conc	2/Week	Grab	Effluent
pH	All Year	6	SU	DMin Conc	2/Week	Grab	Effluent

Table 6-16. Permit Limits for Dresden High School.

Comments:
The High School needs to tie on to City sewer. Trying to allocate money for this.

TN0062545 Martin STP

Discharger rating: Minor
City: Martin
County: Weakley
EFO Name: Jackson
Issuance Date: 12/01/05
Expiration Date: 10/30/10
Receiving Stream(s): Unnamed tributary at mile 0.25 to Cane Creek mile 7.7
HUC-12: 080102030503
Effluent Summary: Treated municipal wastewater from Outfall 001
Treatment system: Extended aeration activated sludge (oxidation ditch) preceded by a storm water reservoir (optional), mechanical screening and followed by clarification, sand filtration, chlorine disinfecting, dechlorinating, and cascade aeration.

Segment	TN08010203020_0100
Name	Cane Creek
Size	16.7
Unit	Miles
First Year on 303(d) List	2004
Designated Uses	Irrigation (Supporting), Livestock Watering and Wildlife (Supporting), Recreation (Not Assessed), Fish and Aquatic Life (Non-Supporting)
Causes	Physical substrate habitat alterations
Sources	Discharges from Municipal Separate Storm Sewer Systems (MS4)

Table 6-17. Stream Segment Information for Martin STP.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Ammonia as N (Total)	Summer	26	lb/day	WAvg Load	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	0.85	mg/L	MAvg Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	18	lb/day	MAvg Load	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	1.27	mg/L	WAvg Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	1.7	mg/L	DMax Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	3	mg/L	DMax Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	1.5	mg/L	MAvg Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	31	lb/day	MAvg Load	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	2.3	mg/L	WAvg Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	48	lb/day	WAvg Load	3/Week	Composite	Effluent
Bypass of Treatment (Occurrences)	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Wet Weather
CBOD % Removal	All Year	40	Percent	DMin % Removal	3/Week	Calculated	% Removal
CBOD % Removal	All Year	85	Percent	MAvg % Removal	3/Week	Calculated	% Removal
CBOD5	Summer	10	mg/L	DMax Conc	3/Week	Composite	Effluent
CBOD5	Summer	156	lb/day	WAvg Load	3/Week	Composite	Effluent
CBOD5	Summer		mg/L	MAvg Conc	3/Week	Composite	Influent (Raw Sewage)
CBOD5	Summer		mg/L	DMax Conc	3/Week	Composite	Influent (Raw Sewage)
CBOD5	Summer	7.5	mg/L	WAvg Conc	3/Week	Composite	Effluent
CBOD5	Summer	5	mg/L	MAvg Conc	3/Week	Composite	Effluent
CBOD5	Summer	104	lb/day	MAvg Load	3/Week	Composite	Effluent
CBOD5	Winter	7.5	mg/L	MAvg Conc	3/Week	Composite	Effluent
CBOD5	Winter		mg/L	DMax Conc	3/Week	Composite	Influent (Raw Sewage)
CBOD5	Winter		mg/L	MAvg Conc	3/Week	Composite	Influent (Raw Sewage)
CBOD5	Winter	156	lb/day	MAvg Load	3/Week	Composite	Effluent
CBOD5	Winter	15	mg/L	DMax Conc	3/Week	Composite	Effluent
CBOD5	Winter	11.3	mg/L	WAvg Conc	3/Week	Composite	Effluent
CBOD5	Winter	236	lb/day	WAvg Load	3/Week	Composite	Effluent
D.O.	All Year	6	mg/L	DMin Conc	Weekdays	Grab	Effluent
E. coli	All Year	941	#/100mL	DMax Conc	3/Week	Grab	Effluent
E. coli	All Year	126	#/100mL	MAvg Geo Mean	3/Week	Grab	Effluent
Flow	All Year		MGD	MAvg Load	Daily	Continuous	Influent (Raw Sewage)
Flow	Winter		MGD	MAvg Conc	Continuous	Continuous	Influent (Raw Sewage)
Flow	Winter		MGD	DMax Conc	Continuous	Continuous	Influent (Raw Sewage)
IC25 7day *Ceriodaphnia dubia*	All Year	100	Percent	DMin Conc	Quarterly	Composite	Effluent

Table 6-18a.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
IC25 7day Fathead Minnows	All Year	100	Percent	DMin Conc	Quarterly	Composite	Effluent
Overflow Use Occurences	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Wet Weather
Overflow Use Occurences	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Non Wet Weather
Settleable Solids	All Year	1	mL/L	DMax Conc	3/Week	Composite	Effluent
TRC	All Year	0.02	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	45	mg/L	DMax Conc	3/Week	Composite	Effluent
TSS	All Year	834	lb/day	WAvg Load	3/Week	Composite	Effluent
TSS	All Year	40	mg/L	WAvg Conc	3/Week	Composite	Effluent
TSS	All Year	626	lb/day	MAvg Load	3/Week	Composite	Effluent
TSS	All Year		mg/L	DMax Conc	3/Week	Composite	Influent (Raw Sewage)
TSS	All Year		mg/L	MAvg Conc	3/Week	Composite	Influent (Raw Sewage)
TSS	All Year	30	mg/L	MAvg Conc	3/Week	Composite	Effluent
TSS % Removal	All Year	40	Percent	DMin % Removal	3/Week	Calculated	% Removal
TSS % Removal	All Year	85	Percent	MAvg % Removal	3/Week	Calculated	% Removal
pH	All Year	8.5	SU	DMax Conc	Weekdays	Grab	Effluent
pH	All Year	6.5	SU	DMin Conc	Weekdays	Grab	Effluent

Table 6-18b.

Tables 6-18a-b. Permit Limits for Martin STP.

Compliance History:
The following numbers of exceedences were noted in PCS:

- 5 Carbonaceous Oxygen Demand (COD)
- 3 Total Copper
- 1 Dissolved Oxygen
- 5 Whole Effluent Toxicity Tests
- 1 Overflow

Comments:
Facility is installing submersible pumps to replace screw pumps on influent.

May 29, 2007 Compliance Evaluation Inspection: Inflow / Infiltration is the main problem with the system. City has contracted out work to locate and eliminate areas of I / I. Contract workers plus city employees have spent 2242 man hours in 9 months addressing the problem. Treatment plant has installed 3 influent pumps to replace the old ones and installed a new bar screen. Plant in good condition.

TN0062031 Sharon Lagoon

Discharger rating: Minor
City: Sharon
County: Weakley
EFO Name: Jackson
Issuance Date: 10/01/05
Expiration Date: 4/30/10
Receiving Stream(s): Middle Fork Obion River at mile 6.5
HUC-12: 080102030305
Effluent Summary: Treated municipal wastewater from Outfall 001
Treatment system: Lagoon

Segment	TN08010203015_2000
Name	Middle Fork Obion River
Size	7
Unit	Miles
First Year on 303(d) List	2002
Designated Uses	Fish and Aquatic Life (Non-Supporting), Recreation (Not Assessed), Irrigation (Supporting), Livestock Watering and Wildlife (Supporting)
Causes	Nitrates, Sedimentation/Siltation
Sources	Non-irrigated Crop Production, Channelization

Table 6-19. Stream Segment Information for Sharon Lagoon.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
BOD % removal	All Year	65	Percent	MAvg % Removal	Weekly	Calculated	% Removal
BOD5	All Year	65	mg/L	DMax Conc	Weekly	Grab	Effluent
BOD5	All Year	78	lb/day	DMax Load	Weekly	Grab	Effluent
BOD5	All Year	60	lb/day	WAvg Load	Weekly	Grab	Effluent
BOD5	All Year	54	lb/day	MAvg Load	Weekly	Grab	Effluent
BOD5	All Year		mg/L	MAvg Conc	Weekly	Composite	Influent (Raw Sewage)
BOD5	All Year		mg/L	DMax Conc	Weekly	Composite	Influent (Raw Sewage)
BOD5	All Year	50	mg/L	WAvg Conc	Weekly	Grab	Effluent
BOD5	All Year	45	mg/L	MAvg Conc	Weekly	Grab	Effluent
Bypass of Treatment (Occurrences)	All Year		Occurences/ Month	MAvg Load	Continuous	Visual	Wet Weather
D.O.	All Year	1	mg/L	DMin Conc	Weekdays	Grab	Effluent
E. coli	All Year	941	#/100mL	DMax Conc	Weekly	Grab	Effluent
E. coli	All Year	126	#/100mL	MAvg Geo Mean	Weekly	Grab	Effluent
Flow	All Year		MGD	MAvg Load	Daily	Continuous	Effluent
Flow	All Year		MGD	DMax Load	Daily	Continuous	Influent (Raw Sewage)
Flow	All Year		MGD	DMax Load	Daily	Continuous	Effluent
Flow	All Year		MGD	MAvg Load	Daily	Continuous	Influent (Raw Sewage)
Overflow Use Occurences	All Year		Occurences/ Month	MAvg Load	Continuous	Visual	Wet Weather
Overflow Use Occurences	All Year		Occurences/ Month	MAvg Load	Continuous	Visual	Non Wet Weather
Settleable Solids	All Year	1	mL/L	DMax Conc	2/Week	Grab	Effluent
TRC	All Year	2	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	120	mg/L	DMax Conc	Weekly	Grab	Effluent
TSS	All Year	143	lb/day	DMax Load	Weekly	Grab	Effluent
TSS	All Year	131	lb/day	WAvg Load	Weekly	Grab	Effluent
TSS	All Year	110	mg/L	WAvg Conc	Weekly	Grab	Effluent
TSS	All Year	119	lb/day	MAvg Load	Weekly	Grab	Effluent
TSS	All Year	100	mg/L	MAvg Conc	Weekly	Grab	Effluent
pH	All Year	9	SU	DMax Conc	2/Week	Grab	Effluent
pH	All Year	6	SU	DMin Conc	2/Week	Grab	Effluent

Table 6-20. Permit Limits on Sharon Lagoon

Compliance History:
The following numbers of exceedences were noted in PCS:

- 6 Biological Oxygen Demand (BOD)
- 7 pH
- 3 Total Suspended Solids
- 1 Settleable Solids

Comments:
March 27, 2007, Compliance Evaluation Letter:

1. Inflow and/or infiltration continue to be a problem within the collection system. These extraneous flows reduce the useful life of the lift station, as well as increasing the power needed to operate them. Efforts must be made to locate and eliminate these areas of inflow and/or infiltration.
2. Solids have begun to accumulate out from the inlet of the lagoon. Excess solids could reduce the treatment effectiveness of the lagoon by reducing the detention time. Efforts should be made to determine the extent of the accumulation and take proper actions if needed.
3. The No. 2 pump motor at the No. 3 lift station would not start. This pump motor must be made operational as soon as possible.

TN0062294 Gleason STP

Discharger rating: Minor
City: Gleason
County: Weakley
EFO Name: Jackson
Issuance Date: 11/01/05
Expiration Date: 9/30/10
Receiving Stream(s): Middle Fork of the Obion River Mile 21.3
HUC-12: 080102030303
Effluent Summary: Treated municipal wastewater from Outfall 001
Treatment system: Lagoon

Segment	TN08010203015_3000
Name	Middle Fork Obion River
Size	19.9
Unit	Miles
First Year on 303(d) List	-
Designated Uses	Livestock Watering and Wildlife (Supporting), Fish and Aquatic Life (Non-Supporting), Recreation (Not Assessed), Irrigation (Supporting)
Causes	Nitrates, Sedimentation/Siltation
Sources	Non-irrigated Crop Production, Channelization

Table 6-21. Stream Segment Information for Gleason STP.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
BOD % removal	All Year	65	Percent	MAvg % Removal	Monthly	Calculated	%Removal
BOD5	All Year	65	mg/L	DMax Conc	Weekly	Composite	Effluent
BOD5	All Year	108	lb/day	DMax Load	Weekly	Composite	Effluent
BOD5	All Year	41	mg/L	MAvg Conc	Weekly	Composite	Effluent
BOD5	All Year	50	mg/L	WAvg Conc	Weekly	Composite	Effluent
BOD5	All Year	83.4	lb/day	WAvg Load	Weekly	Composite	Effluent
BOD5	All Year	68	lb/day	MAvg Load	Weekly	Composite	Effluent
BOD5	All Year		mg/L	MAvg Conc	Monthly	Composite	Influent (Raw Sewage)
BOD5	All Year		mg/L	DMax Conc	Daily	Composite	Influent (Raw Sewage)
Bypass of Treatment (Occurrences)	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Wet Weather
D.O.	All Year	1	mg/L	DMin Conc	Weekdays	Grab	Effluent
E. coli	All Year	941	#/100mL	DMax Conc	Weekly	Grab	Effluent
E. coli	All Year	126	#/100mL	MAvg Geo Mean	Weekly	Grab	Effluent
Flow	All Year		MGD	DMax Load	Weekly	Continuous	Effluent
Flow	All Year		MGD	MAvg Load	Monthly	Calculated	Influent (Raw Sewage)
Flow	All Year		MGD	MAvg Load	Monthly	Calculated	Effluent
Flow	All Year		MGD	DMax Load	Daily	Continuous	Influent (Raw Sewage)
Overflow Use Occurences	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Wet Weather
Overflow Use Occurences	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Non Wet Weather
Settleable Solids	All Year	1	mL/L	DMax Conc	Weekdays	Grab	Effluent
TRC	All Year	2	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	120	mg/L	DMax Conc	Weekly	Composite	Effluent
TSS	All Year	183	lb/day	WAvg Load	Weekly	Composite	Effluent
TSS	All Year	100	mg/L	MAvg Conc	Weekly	Composite	Effluent
TSS	All Year	167	lb/day	MAvg Load	Weekly	Composite	Effluent
TSS	All Year	200	lb/day	DMax Load	Weekly	Composite	Effluent
TSS	All Year	110	mg/L	WAvg Conc	Weekly	Composite	Effluent
TSS % Removal	All Year	65	Percent	MAvg % Removal	Monthly	Calculated	Percent Removal
pH	All Year	9	SU	DMax Conc	Weekdays	Grab	Effluent
pH	All Year	6	SU	DMin Conc	Weekdays	Grab	Effluent

Table 6-22. Permit Limits for Gleason STP.

Compliance History:
The following numbers of exceedences were noted in PCS:

- 4 Biological Oxygen Demand (BOD)
- 4 Total Chlorine
- 4 pH
- 25 Overflows
- 7 Bypasses

Comments:
Inflow and infiltration problems. The facility is addressing these as funding becomes available.

TN0062286 Dresden Lagoon

Discharger rating: Minor
City: Dresden
County: Weakley
EFO Name: Jackson
Issuance Date: 1/1/06
Expiration Date: 4/30/10
Receiving Stream(s): Middle Fork of the Obion River Mile 14.6
HUC-12: 080102030501
Effluent Summary: Treated municipal wastewater from Outfall 001
Treatment system: Lagoon

Name	Middle Fork Obion River
Size	7
Unit	Miles
First Year on 303(d) List	2002
Designated Uses	Fish and Aquatic Life (Non-Supporting), Recreation (Not Assessed), Irrigation (Supporting), Livestock Watering and Wildlife (Supporting)
Causes	Nitrates, Sedimentation/Siltation
Sources	Non-irrigated Crop Production, Channelization

Table 6-23. Stream Segment Information for Dresden Lagoon.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Ammonia as N (Total)	All Year		mg/L	DMax Conc	Semi-annually	Grab	Effluent
BOD % removal	All Year	65	Percent	MAvg % Removal	Weekly	Calculated	% Removal
BOD5	All Year	65	mg/L	DMax Conc	Weekly	Grab	Effluent
BOD5	All Year	319	lb/day	DMax Load	Weekly	Grab	Effluent
BOD5	All Year	245	lb/day	WAvg Load	Weekly	Grab	Effluent
BOD5	All Year	221	lb/day	MAvg Load	Weekly	Grab	Effluent
BOD5	All Year	50	mg/L	WAvg Conc	Weekly	Grab	Effluent
BOD5	All Year	45	mg/L	MAvg Conc	Weekly	Grab	Effluent
Bypass of Treatment (Occurrences)	All Year		Occurences/ Month	MAvg Load	Continuous	Visual	Wet Weather
D.O.	All Year	1	mg/L	DMin Conc	Weekdays	Grab	Effluent
E. coli	All Year	941	#/100mL	DMax Conc	Weekly	Grab	Effluent
E. coli	All Year	126	#/100mL	MAvg Geo Mean	Weekly	Grab	Effluent
Flow	All Year		MGD	DMax Load	Weekdays	Instantaneous	Effluent
Flow	All Year		MGD	MAvg Load	Daily	Instantaneous	Influent (Raw Sewage)
Flow	All Year		MGD	MAvg Load	Daily	Instantaneous	Effluent
Flow	All Year		MGD	DMax Load	Daily	Instantaneous	Influent (Raw Sewage)
Nitrite + Nitrate Total (as N)	All Year		mg/L	DMax Conc	Semi-annually	Grab	Effluent
Overflow Use Occurences	All Year		Occurences/ Month	MAvg Load	Continuous	Visual	Wet Weather
Overflow Use Occurences	All Year		Occurences/ Month	MAvg Load	Continuous	Visual	
Phosphorus, Total	All Year		mg/L	DMax Conc	Semi-annually	Grab	Effluent
Settleable Solids	All Year	1	mL/L	DMax Conc	2/Week	Grab	Effluent
TKN: Total Kjeldahl Nitrogen	All Year		mg/L	DMax Conc	Semi-annually	Grab	Effluent
TRC	All Year	1	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	120	mg/L	DMax Conc	Weekly	Grab	Effluent
TSS	All Year	491	lb/day	MAvg Load	Weekly	Grab	Effluent
TSS	All Year	589	lb/day	DMax Load	Weekly	Grab	Effluent
TSS	All Year	540	lb/day	WAvg Load	Weekly	Grab	Effluent
TSS	All Year	100	mg/L	MAvg Conc	Weekly	Grab	Effluent
TSS	All Year	110	mg/L	WAvg Conc	Weekly	Grab	Effluent
pH	All Year	9	SU	DMax Conc	2/Week	Grab	Effluent
pH	All Year	6	SU	DMin Conc	2/Week	Grab	Effluent

Table 6-24. Permit Limits for Dresden Lagoon.

Compliance History:
The following numbers of exceedences were noted in PCS:

- 10 Biological Oxygen Demand (BOD)
- 5 pH
- 6 Suspended Solids % Removal
- 5 Total Suspended Solids
- 59 Overflows
- 9 Bypasses

Comments:
Inflow and infiltration problems in collection system. Facility is actively trying to fix. They are in the process of locating and correcting.

July 6, 2006 Compliance Evaluation Inspection: Inflow and/or infiltration major problem. City is on self-imposed moratorium. Dresden Industrial Lagoon underloaded due to loss of industrial facilities

TN0062065 Greenfield Wastewater Lagoon

Discharger rating: Minor
City: Greenfield
County: Weakley
EFO Name: Jackson
Issuance Date: 1/1/06
Expiration Date: 11/29/10
Receiving Stream(s): Middle Fork Obion River Mile 7.3
HUC-12: 080102030305
Effluent Summary: Treated domestic wastewater from Outfall 001
Treatment system: Lagoon

Segment	TN08010203015_2000
Name	Middle Fork Obion River
Size	7
Unit	Miles
First Year on 303(d) List	2002
Designated Uses	Fish and Aquatic Life (Non-Supporting), Recreation (Not Assessed), Irrigation (Supporting), Livestock Watering and Wildlife (Supporting)
Causes	Nitrates, Sedimentation/Siltation
Sources	Non-irrigated Crop Production, Channelization

Table 6-25. Stream Segment Information for Greenfield Wastewater Lagoon.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
BOD % removal	All Year	65	Percent	MAvg Conc	Monthly	Calculated	Effluent
BOD5	All Year	50	mg/L	WAvg Conc	Weekly	Grab	Effluent
BOD5	All Year	45	mg/L	MAvg Conc	Weekly	Grab	Effluent
BOD5	All Year	184	lb/day	MAvg Load	Weekly	Grab	Effluent
BOD5	All Year	65	mg/L	DMax Conc	Weekly	Grab	Effluent
BOD5	All Year		mg/L	MAvg Conc	Weekly	Composite	Intake
BOD5	All Year		mg/L	DMax Conc	Weekly	Grab	Effluent
BOD5	All Year	266	lb/day	DMax Load	Weekly	Grab	Effluent
BOD5	All Year	204	lb/day	WAvg Load	Weekly	Grab	Effluent
Bypass of Treatment (Occurrences)	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Wet Weather
D.O.	All Year	1	mg/L	DMin Conc	Weekdays	Grab	Effluent
E. coli	All Year	941	#/100mL	MAvg Ari Mean	Weekly	Grab	Effluent
E. coli	All Year	126	#/100mL	MAvg Conc	3/Week	Grab	Effluent
Flow	All Year		MGD	MAvg Load	Weekdays	Instantaneous	Effluent
Flow	All Year		MGD	DMax Load	Weekdays	Instantaneous	Effluent
Flow	All Year		MGD	MAvg Load	Weekdays	Instantaneous	Influent (Raw Sewage)
Nitrogen Total (as N)	Summer		mg/L	MAvg Conc	Bi-monthly	Composite	Effluent
Nitrogen Total (as N)	Summer		mg/L	DMax Conc	Bi-monthly	Composite	Effluent
Overflow Use Occurences	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Wet Weather
Overflow Use Occurences	All Year		Occurences/Month	MAvg Load	Continuous	Visual	Non Wet Weather
Phosphorus, Total	Summer		mg/L	MAvg Conc	Bi-monthly	Composite	Effluent
Phosphorus, Total	Summer		mg/L	DMax Conc	Bi-monthly	Composite	Effluent
Settleable Solids	All Year	1	mL/L	DMax Conc	Weekdays	Grab	Effluent
TRC	All Year	1.6	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	409	lb/day	MAvg Load	Weekly	Grab	Effluent
TSS	All Year	100	mg/L	MAvg Conc	Weekly	Grab	Effluent
TSS	All Year	110	mg/L	WAvg Conc	Weekly	Grab	Effluent
TSS	All Year	120	mg/L	DMax Conc	Weekly	Grab	Effluent
TSS	All Year	490	lb/day	DMax Load	Weekly	Grab	Effluent
TSS	All Year	450	lb/day	WAvg Load	Weekly	Grab	Effluent
pH	All Year	9	SU	DMax Conc	Weekdays	Grab	Effluent
pH	All Year	6	SU	DMin Conc	Weekdays	Grab	Effluent

Table 6-26. Permit Limits for Greenfield Wastewater Lagoon.

Compliance History:
The following numbers of exceedences were noted in PCS:

- 6 Biological Oxygen Demand (BOD)
- 3 Total Suspended Solids
- 1 Settleable Solids
- 6 Overflows
- 1 Bypasses

Comments:
Facility not aggressively pursuing corrective action for inflow and infiltration problems in their collection system. Facility has made improvements to the lagoon. New influent and effluent flow meters were installed. Repaired and replaced some aerators and reattached curtain (goes across effluent structure).

December 8, 2006 Compliance Evaluation Inspection: Major problem inflow and/or infiltration. New influent and effluent pumps. Paddle type aerators proposed.

TN0062375 Milan STP

Discharger rating: Minor
City: Milan
County: Gibson
EFO Name: Jackson
Issuance Date: 2/28/05
Expiration Date: 2/28/10
Receiving Stream(s): Rutherford Fork of Obion River mile 29.2
HUC-12: 080102030603
Effluent Summary: Treated domestic wastewater from Outfall 001
Treatment system: Sludge to coil filter to landfill

Segment	TN08010203032_2000
Name	Rutherford Fork Obion River
Size	10
Unit	Miles
First Year on 303(d) List	2004
Designated Uses	Fish and Aquatic Life (Non-Supporting), Recreation (Supporting), Irrigation (Supporting), Livestock Watering and Wildlife (Supporting)
Causes	Physical substrate habitat alterations, Sedimentation/Siltation
Sources	Channelization, Non-irrigated Crop Production

Table 6-27. Stream Segment Information for Milan STP.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Ag (T)	All Year	5E-04	mg/L	DMax Conc	Semi-annually	Composite	Effluent
Ammonia as N (Total)	Summer	5	mg/L	DMax Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	3	mg/L	MAvg Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	4	mg/L	WAvg Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	65	lb/day	MAvg Load	3/Week	Composite	Effluent
Ammonia as N (Total)	Summer	85	lb/day	WAvg Load	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	10	mg/L	DMax Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	160	lb/day	WAvg Load	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	5	mg/L	MAvg Conc	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	106	lb/day	MAvg Load	3/Week	Composite	Effluent
Ammonia as N (Total)	Winter	7.5	mg/L	WAvg Conc	3/Week	Composite	Effluent
CBOD % Removal	All Year	40	Percent	DMin % Removal	3/Week	Calculated	% Removal
CBOD % Removal	All Year	85	Percent	MAvg % Removal	3/Week	Calculated	% Removal
CBOD5	Summer	30	mg/L	DMax Conc	3/Week	Composite	Effluent
CBOD5	Summer	532	lb/day	WAvg Load	3/Week	Composite	Effluent
CBOD5	Summer	25	mg/L	WAvg Conc	3/Week	Composite	Effluent
CBOD5	Summer	425	lb/day	MAvg Load	3/Week	Composite	Effluent
CBOD5	Summer	20	mg/L	MAvg Conc	3/Week	Composite	Effluent
CBOD5	Winter	35	mg/L	DMax Conc	3/Week	Composite	Effluent
CBOD5	Winter	30	mg/L	WAvg Conc	3/Week	Composite	Effluent
CBOD5	Winter	638	lb/day	WAvg Load	3/Week	Composite	Effluent
CBOD5	Winter	532	lb/day	MAvg Load	3/Week	Composite	Effluent
CBOD5	Winter	25	mg/L	MAvg Conc	3/Week	Composite	Effluent
Cu (T)	All Year	0.03	mg/L	DMax Conc	Monthly	Composite	Effluent
D.O.	All Year	5	mg/L	DMin Conc	Weekdays	Grab	Effluent
E. coli	All Year	941	#/100mL	DMax Conc	3/Week	Grab	Effluent
E. coli	All Year	126	#/100mL	MAvg Geo Mean	3/Week	Grab	Effluent
Flow	All Year		MGD	DMax Load	Daily	Continuous	Effluent
Flow	All Year		MGD	MAvg Load	Daily	Continuous	Effluent
Flow	All Year		MGD	MAvg Load	Daily	Continuous	Influent (Raw Sewage)
Flow	All Year		MGD	DMax Load	Daily	Continuous	Influent (Raw Sewage)
IC25 7day *Ceriodaphnia dubia*	All Year	25	Percent	DMin Conc	Quarterly	Composite	Effluent
IC25 7day Fathead Minnows	All Year	25	Percent	DMin Conc	Quarterly	Composite	Effluent
Settleable Solids	All Year	1	mL/L	DMax Conc	3/Week	Composite	Effluent
TRC	All Year	0.07	mg/L	DMax Conc	Weekdays	Grab	Effluent
TSS	All Year	45	mg/L	DMax Conc	3/Week	Composite	Effluent
TSS	All Year	30	mg/L	MAvg Conc	3/Week	Composite	Effluent
TSS	All Year	638	lb/day	MAvg Load	3/Week	Composite	Effluent
TSS	All Year	851	lb/day	WAvg Load	3/Week	Composite	Effluent
TSS	All Year	40	mg/L	WAvg Conc	3/Week	Composite	Effluent
TSS % Removal	All Year	40	Percent	DMin % Removal	3/Week	Calculated	% Removal
TSS % Removal	All Year	85	Percent	MAvg % Removal	3/Week	Calculated	% Removal
pH	All Year	9	SU	DMax Conc	Weekdays	Grab	Effluent
pH	All Year	6	SU	DMin Conc	Weekdays	Grab	Effluent

Table 6-28. Permit Limits for Milan STP.

Compliance History:
The following numbers of exceedences were noted in PCS:

- 11 Total Chlorine
- 4 Biological Oxygen Demand (BOD)
- 2 Ammonia
- 1 Total Suspended Solids (TSS)
- 1 pH
- 2 Overflows

Comments:
3/16/07 Pretreatment Inspection: It appears that Milan's pretreatment program is very well managed. Files are well maintained and easily accessible. Compliance with permit requirements is monitored by samples collected by the City and the companies. When violations of the permit limits have occurred, it appears that the appropriate enforcement action has been taken.

6/26/07 Compliance Evaluation Inspection. City is going to switch from chlorine to ultraviolet for disinfection. Design is for 5 MGD in order handle maximum flows. Reminded city on procedure to submit plans for construction. Inflow and infiltration problems.

6.4.B. Industrial Permits

TN0003221 Norandal USA, Inc.

Discharger rating: Minor
City: Huntington
County: Carroll
EFO Name: Jackson
Issuance Date: 8/31/05
Expiration Date: 8/31/10
Receiving Stream(s): Mile 2.2 of Northwood Branch (001) and mile 2.4 of Northwood Branch (002) and mile 2.6 of Northwood Branch (003) to mile 7.0 of Beaver Creek
HUC-12: 080102030101
Effluent Summary: Noncontact cooling water through Outfalls 001, 002, and 003
Treatment system: -

Segment	TN08010203010_2000
Name	Beaver Creek
Size	3.4
Unit	Miles
First Year on 303(d) List	1990
Designated Uses	Industrial Water Supply (Supporting), Fish and Aquatic Life (Non-Supporting), Recreation (Not Assessed), Irrigation (Supporting), Livestock Watering and Wildlife (Supporting)
Causes	Sedimentation/Siltation, Oxygen, Dissolved, Phosphate
Sources	Municipal Point Source Discharges, Discharges from Municipal Separate Storm Sewer Systems (MS4), Non-irrigated Crop Production

Table 6-29. Stream Segment Information for Norandal USA, Inc.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Flow	All Year		MGD	MAvg Load	Daily	Instantaneous	Effluent
Flow	All Year		MGD	DMax Load	Daily	Instantaneous	Effluent
Hardness Total (as CaCO3)	All Year		mg/L	DMax Conc	Semi-annually	Grab	Effluent
IC25 7day *Ceriodaphnia dubia*	All Year	100	Percent	DMin Conc	Semi-annually	Composite	Effluent
IC25 7day Fathead Minnows	All Year	100	Percent	DMin Conc	Semi-annually	Composite	Effluent
Oil and Grease (Freon EM)	All Year	30	mg/L	DMax Conc	Monthly	Grab	Effluent
Temperature (°C)	All Year		°C	DMax Load	Monthly	Grab	Effluent
Zn (T)	All Year	0.2	mg/L	DMax Conc	Monthly	Grab	Effluent
pH	All Year	9	SU	DMax Conc	Monthly	Grab	Effluent
pH	All Year	6	SU	DMin Conc	Monthly	Grab	Effluent

Table 6-30. Permit Limits for Norandal USA, Inc.

Comments:

Aluminum Sheet, Plate, and Foil. A Compliance Evaluation Inspection was conducted at this facility on 9/8/05 and it was found that their self monitoring program appeared to be in compliance. Outfall 001 had a large discharge of very clear cooling water. No oil or sheen was observed. Outfall 002 had a much smaller discharge of very clear water. There were some floating algae noted behind the baffle wall. However, none was apparently entering the discharge. Outfall 003 had a small discharge of clear water with algae behind the baffle wall, much like 002.

TN0064521 Associated Rubber Company

Discharger rating: Minor
City: Huntingdon
County: Carroll
EFO Name: Jackson
Issuance Date: 1/31/05
Expiration Date: 1/30/10
Receiving Stream(s): Northwood Branch at mile 2.4
HUC-12: 080102030101
Effluent Summary: Non-contact cooling water through Outfall 001
Treatment system: -

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Flow	All Year		MGD	DMax Load	Monthly	Instantaneous	Effluent
Flow	All Year		MGD	MAvg Load	Monthly	Instantaneous	Effluent
IC25 7day *Ceriodaphnia dubia*	All Year	100	Percent	DMin Conc	Annually	Composite	Effluent
IC25 7day Fathead Minnows	All Year	100	Percent	DMin Conc	Annually	Composite	Effluent
Oil and Grease (Freon EM)	All Year	15	mg/L	DMax Conc	Quarterly	Grab	Effluent
Oil and Grease (Freon EM)	All Year	10	mg/L	MAvg Conc	Quarterly	Grab	Effluent
TRC		0.011	mg/L	MAvg Conc	Monthly	Grab	Effluent
TRC		0.019	mg/L	DMax Conc	Monthly	Grab	Effluent
TSS	All Year	20	lb/day	DMax Load	Monthly	Composite	Effluent
TSS	All Year	10	lb/day	MAvg Load	Monthly	Composite	Effluent
Temperature (°C)	All Year		°C	DMax Conc	Monthly	Grab	Effluent
Temperature (°C)	All Year		°C	MAvg Conc	Monthly	Grab	Effluent
pH	All Year	9	SU	DMax Conc	Monthly	Grab	Effluent
pH	All Year	6	SU	DMin Conc	Monthly	Grab	Effluent

Table 6-31. Permit Limits for Associated Rubber Company.

Compliance History:
The following numbers of exceedences were noted in PCS:

Comments:
Custom Mixing of Rubber Products for Industrial and Automotive Markets.

A CEI was conducted on 9/13/05. The non-contact cooling water discharge was very clear, with no oil or sheen observed. The bottom of the discharge ditch was orange with iron flow. The adjoining storm water outfalls were not discharging and no build-up of carbon black or other solids were noticed in the pool below the storm water culverts.

On 11/16/05, Jackson EFO personnel met with several representatives from the company, TEC Environmental Labs, and Dr. Larry Moore from the Univ. of Memphis concerning the continued failure of this company's effluent during toxicity testing. Several ideas were discussed as to the reason for their non-compliance. Then several possible solutions were discussed. One such solution was to construct a holding pond. Another was to adjust their hardness. Recirculation was also discussed. One of the best solutions might just be to construct a long rip-rapped ditch for their water to flow down before it leaves their property.

TN0000060 Milan Army Ammunition Plant (MLAAP)

Discharger rating: Minor
City: Milan
County: Gibson
EFO Name: Jackson
Issuance Date: 1/31/05
Expiration Date: 1/30/10
Receiving Stream(s): Various tributaries to Rutherford Fork of the Obion River
HUC-12: 080102030603
Effluent Summary: Storm water runoff associated with industrial activities from Outfalls SW1, SW2, SW4, SW5, SW7, and SW8
Treatment system: -

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Flow	All Year		MGD	MAvg Load	Semi-annually	Estimate	Effluent
Nitrobodies Total	All Year		mg/L	DMax Conc	Semi-annually	Grab	Effluent

Table 6-32. Permit Limits for Outfall SW1 at Associated Rubber Company.

Enforcement:
Commissioner's Order #05-0181 MLAAP created sprayfield system (SOP-01005) to discontinue discharge through outfall 009 (NPDES permitted TN0000060). Had NPDES violations before sprayfield complete and 2 instances of bypass/overflow (violation of SOP).

Comments:
Loading, assembling, and packing military ammunition.

TN0074985 Replogle Enterprises, LLC

Discharger rating: Minor
City: Henry
County: Henry
EFO Name: Jackson
Issuance Date: 2/1/06
Expiration Date: 4/30/10
Receiving Stream(s): Mile 1.4 of unnamed tributary to mile 2.0 of an unnamed tributary to mile 3.0 of Trainer Creek
HUC-12: 080102030301
Effluent Summary: Mulch pile spraying wastewater from Outfall 001
Treatment system: Settling pond

Segment	TN08010203015_1100
Name	Trainer Creek
Size	15.9
Unit	Miles
First Year on 303(d) List	-
Designated Uses	Recreation (Not Assessed), Irrigation (Supporting), Livestock Watering and Wildlife (Supporting), Fish and Aquatic Life (Supporting)
Causes	N/A
Sources	N/A

Table 6-33. Stream Segment Information for Replogle Enterprises, LLC.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
BOD5	All Year	20	mg/L	DMax Conc	2/Month	Grab	Effluent
Bis (2-Ethylhexyl) Phthalate	All Year		mg/L	MAvg Conc	2/Month	Grab	Effluent
Bis (2-Ethylhexyl) Phthalate	All Year	0.022	mg/L	DMax Conc	2/Month	Grab	Effluent
Cd (T)	All Year		mg/L	MAvg Conc	2/Month	Grab	Effluent
Cd (T)	All Year	0.004	mg/L	DMax Conc	2/Month	Grab	Effluent
D.O.	All Year	6	mg/L	DMin Conc	2/Month	Grab	Effluent
Flow	All Year		MGD	MAvg Load	2/Month	Instantaneous	Effluent
Flow	All Year		MGD	DMax Load	2/Month	Instantaneous	Effluent
Pb (T)	All Year		mg/L	MAvg Conc	2/Month	Grab	Effluent
Pb (T)	All Year		mg/L	DMax Conc	2/Month	Grab	Effluent
TSS	All Year	40	mg/L	DMax Conc	2/Month	Grab	Effluent
Zn (T)	All Year		mg/L	MAvg Conc	2/Month	Grab	Effluent
Zn (T)	All Year	0.226	mg/L	DMax Conc	2/Month	Grab	Effluent
pH	All Year	9	SU	DMax Conc	2/Month	Grab	Effluent
pH	All Year	6	SU	DMin Conc	2/Month	Grab	Effluent

Table 6-34. Permit Limits for Replogle Enterprises, LLC.

Compliance History:
The following numbers of exceedences were noted in PCS:

- 3 Total Zinc
- 5 Total Suspended Solids
- 2 Biological Oxygen Demand (BOD)

Comments:
Sawmill. Issued a Notice of Violation - Company keeps adding height to levee rather than reduce storm water or treat the storm water.

TN0046337 Kentucky-Tennessee Clay Co. #1

Discharger rating: Minor
City: Gleason
County: Weakley
EFO Name: Jackson
Issuance Date: 7/1/05
Expiration Date: 5/31/10
Receiving Stream(s): Unnamed tributary at mile 0.8 to Middle Fork Obion River at mile 18.5
HUC-12: 080102030303
Effluent Summary: Treated storm water and process wastewater from Outfall 001
Treatment system: Equalization, coagulation, flocculation, sedimentation, neutralization and evaporation

Segment	TN08010203015_3000
Name	Middle Fork Obion River
Size	19.9
Unit	Miles
First Year on 303(d) List	-
Designated Uses	Livestock Watering and Wildlife (Supporting), Fish and Aquatic Life (Non-Supporting), Recreation (Not Assessed), Irrigation (Supporting)
Causes	Nitrates, Sedimentation/Siltation
Sources	Non-irrigated Crop Production, Channelization

Table 6-35. Stream Segment Information for Kentucky-Tennessee Clay Co. #1.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Al (T)	All Year		mg/L	DMax Conc	Annually	Grab	Effluent
Fe (T)	All Year		mg/L	DMax Conc	Annually	Grab	Effluent
Flow	All Year		MGD	DMax Load	2/Month	Instantaneous	Effluent
Flow	All Year		MGD	MAvg Load	2/Month	Instantaneous	Effluent
Settleable Solids	All Year	0.5	mL/L	DMax Conc	Quarterly	Grab	Effluent
TSS	All Year	40	mg/L	DMax Conc	2/Month	Grab	Effluent
pH	All Year	9	SU	DMax Conc	2/Month	Grab	Effluent
pH	All Year	6	SU	DMin Conc	2/Month	Grab	Effluent

Table 6-36. Permit Limits for Kentucky-Tennessee Clay Co. #1.

Comments:
Mining and processing of ball clay. Compliance Evaluation Inspection on December 21, 2005: Needs to calibrate pH meter daily instead of weekly. Methods OK, but still not showing all method references on lab sheets. Corrections on DMRs were not initialed.

TN0058858 The University of Tennessee at Martin Maintenance Center

Discharger rating: Minor
City: Martin
County: Weakley
EFO Name: Jackson
Issuance Date: 12/1/05
Expiration Date: 10/30/10
Receiving Stream(s): Unnamed tributaries of Cane Creek at mile point 10.8
HUC-12: 080102030503
Effluent Summary: Swimming pool filter backwash water through Outfalls 020
Treatment system: -

Segment	TN08010203020_0100
Name	Cane Creek
Size	16.7
Unit	Miles
First Year on 303(d) List	2004
Designated Uses	Irrigation (Supporting), Livestock Watering and Wildlife (Supporting), Recreation (Not Assessed), Fish and Aquatic Life (Non-Supporting)
Causes	Physical substrate habitat alterations
Sources	Discharges from Municipal Separate Storm Sewer Systems (MS4)

Table 6-37. Stream Segment Information for the University of Tennessee at Martin Maintenance Center.

PARAMETER	SEASON	LIMIT	UNITS	SAMPLE DESIGNATOR	MONITORING FREQUENCY	SAMPLE TYPE	MONITORING LOCATION
Flow	All Year		MGD	DMax Load	Monthly	Instantaneous	Effluent
Flow	All Year		MGD	MAvg Load	Monthly	Instantaneous	Effluent
TRC	All Year	0.011	mg/L	MAvg Conc	Monthly	Grab	Effluent
TRC	All Year	0.019	mg/L	DMax Conc	Monthly	Grab	Effluent
TSS	All Year	30	mg/L	MAvg Conc	Monthly	Composite	Effluent
TSS	All Year	40	mg/L	DMax Conc	Monthly	Composite	Effluent
pH	All Year	9	SU	DMax Conc	Monthly	Grab	Effluent
pH	All Year	6	SU	DMin Conc	Monthly	Grab	Effluent

Table 6-38. Permit Limits for the University of Tennessee at Martin Maintenance Center.

Compliance History:
The following numbers of exceedences were noted in PCS:

- 3 Total Chlorine

Comments:
Outfall 20 pool filter backwash is only remaining discharge.